



## **STATE OF TENNESSEE**

### **DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

#### **DIVISION OF UNDERGROUND STORAGE TANKS**

#### **REIMBURSEMENT GUIDANCE DOCUMENT – 002**

**Effective Date April 15, 2014**

**RE: Pre-approved Cost Tasks, Descriptions, Maximum Costs and Reimbursement Guidance**

#### **I. GENERAL GUIDANCE**

##### **A. Purpose**

The purpose of this Reimbursement Guidance Document (RGD) is to provide detailed descriptions and maximum costs for routine tasks associated with UST system closure, hazard management, investigation and clean-up of petroleum contaminated sites where owners/operators or petroleum site owners may apply for reimbursement of eligible expenses from the Petroleum Underground Storage Tank Fund (Fund). This document contains unit rates that the Division of Underground Storage Tanks (Division) considers to be reasonable. Only these rates or lower will be reimbursed unless prior written Division approval is granted. The Division will review reimbursement applications based on this guidance.

##### **B. Applicability**

This document replaces all previous published guidance affecting the reimbursement process.

Rule 400-18-01-.09(3) (c) states “ Except as provided for in subparagraph (5)(d) of this rule, before the owner and/or operator or petroleum site owner will receive fund benefit, the applicable entry level amount to the fund shall be expended as approved costs by the owner and/or operator or petroleum site owner. The applicable entry level is the entry level in effect on the date of the release as set forth in subparagraph (6)(b) of this rule.

Rule 400-18-01-.09(4)(a) states: “If at the time of discovery of a release, the division determines that an owner and/or operator has failed to establish fund eligibility in accordance with subparagraph (3)(a) or (b) of this rule, corrective action costs and/or third party damages associated with that release are not eligible for coverage by the fund.

Rule 400-18-01-.09(4)(d) states: “If there is evidence of a suspected release or a confirmed release on or after July 1, 2004, that release shall be ineligible for

reimbursement from the fund if an Application for Fund Eligibility is not timely filed in accordance with the following:

1. An Application for Fund Eligibility shall be filed with the division within ninety (90) days of the discovery of evidence of a suspected release which is subsequently confirmed in accordance with Rules 0400-18-01-.04 and/or 0400-18-01-.05. The ninety (90) days shall start on the day the evidence of the suspected release is discovered.
2. An Application for Fund Eligibility shall be filed with the division within sixty (60) days of a release which was identified in any manner other than the process for confirmation of a suspected release in accordance with Rules 0400-18-01-.04 and/or 0400-18-01-.05, for example, during closure activities performed in accordance with Rule 0400-18-01-.07.”

Rule 400-18-01-.09(6)(c) states: “The fund shall be responsible to eligible UST owners and/or operators or petroleum site owners for eligible corrective action costs above the entry level to the fund in an amount not to exceed one million dollars (\$1,000,000) per site per occurrence. Likewise, the fund shall be responsible to eligible UST owners and/or operators or petroleum site owners for court awards involving third party claims above the entry level into the fund in an amount not to exceed one million dollars (\$1,000,000) per site per occurrence.”

Rule 400-18-01-.09(8)(c) states: “The owner and/or operator or petroleum site owner fund deductible amounts as specified in subparagraph (6)(b) of this rule are not eligible for reimbursement from the fund. Proof of payment of these initial amounts is required prior to reimbursement of any costs. The owner and/or operator or petroleum site owner fund deductible for taking corrective action cannot include any cost defined as fund ineligible in subparagraphs (a) and (b) of this paragraph.”

Rule 400-18-01-.09(9)(d) states: “All claims against the fund are clearly obligations only of the fund and not of the State, and any amounts required to be paid under this part are subject to the availability of sufficient monies in the fund. The full faith and credit of the State shall not in any way be pledged or considered to be available to guarantee payment from such fund.”

Rule 400-18-01-.09(10)(b) states: “Upon confirmation and reporting of a release in accordance with the requirements of paragraphs (1) through (3) of Rule 0400-18-01-.05 or after a release from the UST system is identified in any other manner, the owner and/or operator or petroleum site owner shall select a contractor from the division's list of approved contractors if the owner and/or operator or petroleum site owner expects to apply for fund benefits. The division shall be notified in writing of such a selection within thirty (30) days or other time frame specified by the division. A contractual agreement shall be established between the owner and/or operator or petroleum site owner and the contractor in accordance with the requirements of T.C.A. § 68-215-129. The division shall be provided a copy of the contractual agreement.”

Rule 400-18-01-.09(12)(e) states: “All payments shall be subject to approval by the division. Should a site inspection or other information available to the division reveal a discrepancy between the work performed and the work addressed by a payment application, the division may deny payment or may require the fund to be reimbursed.”

Rule 400-18-01-.09(12)(f) states: “All applications for payment of costs of cleanup shall be received by the division within one (1) year of performance of the task or tasks covered by that application in order to be eligible for payment from the fund.”

Rule 400-18-01-.09(14)(d) states: “Contingent upon availability of funds, the department shall process all applications for payment as soon as possible upon receipt of application. If all costs are considered to be reasonable and eligible for reimbursement, payment will be issued within ninety (90) days once costs have been determined to be reasonable and eligible for reimbursement. If certain costs are considered as not being reasonable or eligible for reimbursement, the division may issue a check for the amount of the application not in question and provide a forty-five (45) day period in which the owner and/or operator or petroleum site owner or contractor may present such information as is necessary to justify the disallowed costs. Following review of such information, the division may agree to pay the previously disallowed costs, or any portion thereof, or may again disallow the costs for payment. If the division disallows costs upon a second review, the owner and/or operator or petroleum site owner may petition the board for a hearing on the disallowance pursuant to Rule 0400-18-01-.11.”

**C. Application for Fund Eligibility Determination and Reimbursement Application Format**

T.C.A. 68-215-111(f)(6)(A)\* states: “If there is evidence of a suspected or a confirmed release on or after July 1, 2004, in order for the tank owner, tank operator or petroleum site owner to receive reimbursement from the fund, an application for fund eligibility shall be filed:

- (i) Within ninety (90) days of the discovery of evidence of a suspected release which is subsequently confirmed in accordance with the rules promulgated pursuant to this part; or
- (ii) Within sixty (60) days of a release which was identified in any manner other than the process for confirmation of a suspected release stated in the rules promulgated pursuant to this part.

T.C.A. 68-215-111(f)(6)(B)\* states: “The tank owner or tank operator shall send notification to the petroleum site owner by certified mail, return receipt requested, within seven (7) days of confirmation of a release. Failure to comply with the applicable deadline of subdivision (f)(6)(A)(i) or (ii) shall make the release ineligible for reimbursement from the fund.”

T.C.A. 68-215-111(f)(7)\* states: “On or after July 1, 2004, all applications for payment of costs of cleanup shall be received by the division within one (1) year of the performance of the task or tasks covered by that application in order to be eligible for payment from the fund.”

\*See Public Chapter No 794 of the Public Acts of 2008

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## **II. DEFINITIONS AND ACRONYMS**

### **A. Definitions**

For the purposes of this RGD only, the following definitions apply:

|                   |  |
|-------------------|--|
| Contamination-    | Soil and/or ground water analytical results with regulated petroleum constituents exceeding the Division's Initial Screening Levels (ISLs) as identified during closure activities, Phase II investigation, etc. or Division's approved Site-Specific Clean-up Levels (SSCLs).   |
| Deductible-       | The entry level or amount of financial responsibility that must be expended as approved costs by the responsible party prior to any reimbursement of eligible expenses. All releases that occurred after July 1, 2005 have a deductible of \$20,000.00 (twenty thousand dollars) unless granted a reduced deductible. See the application for fund eligibility for further instructions about reduced deductibles. |
| Maximum Workday-  | The allowable maximum number of hours/day that may be claimed for any task is ten (10) hours unless written approval is obtained from the Division case manager in advance of conducting the work. This excludes tasks 2.4.e and any lump sum task.  |
| Proof of payment- | The acceptable evidence that the invoices included in the reimbursement application have been paid. The acceptable methods include either copies of canceled checks or affidavits (CAC Certification page) signed by the contractors stating they have received payment.   |
| Reasonable cost-  | The monetary amount or range, as determined by the Division, to be commensurate with a corrective action activity. The Division's determination is based on an evaluation of typical expected costs. This evaluation considers the scope and complexity of the particular corrective action activity involved.   |
| Week-             | Rental equipment is often rented on a weekly basis. A week is defined as three (3) to five (5) consecutive days.   |

### **B. Acronyms Used in this Document**

|       |   |
|-------|---|
| BTEX  | Benzene, toluene, ethylbenzene, and total xylenes |
| CAC   | Corrective action contractor                      |
| CAD   | Computer aided design                             |
| CAP   | Corrective Action Plan                            |
| CAS   | Corrective Action System                          |
| CASDR | Corrective Action System Down Report              |
| CASFL | Corrective Action System Field Log                |
| CASRL | Corrective Action System Repair Log               |
| CFM   | Cubic feet per minute                             |

|       |   |
|-------|---|
| DMR   | Discharge Monitoring Report                     |
| EAG   | Environmental Assessment Guidelines             |
| EPH   | Extractable Petroleum Hydrocarbons              |
| FID   | Flame ionization detector                       |
| FP    | Free product                                    |
| FPIR  | Free Product Investigation Report               |
| FPRP  | Free Product Removal Plan                       |
| GPM   | Gallons per minute                              |
| HMR   | Hazard Management Report                        |
| HNR   | Hazard Notification Report                      |
| IRHMR | Initial Response and Hazard Management Report   |
| ISCR  | Initial Site Characterization Report            |
| MCL   | Maximum contaminant level                       |
| MEME  | Mobile enhanced multi-phase extraction          |
| MtBE  | Methyl tertiary butyl ether                     |
| NAPH  | Naphthalene                                     |
| NOD   | Notice of deficiency                            |
| NOV   | Notice of violation                             |
| NPDES | National pollution discharge elimination system |
| OSHA  | Occupational Safety and Health Administration   |
| OVD   | Organic vapor detector                          |
| PID   | Photoionization detector                        |
| POTW  | Publicly owned treatment works                  |
| QA/QC | Quality assurance and quality control           |
| RGD   | Reimbursement guidance document                 |
| SGS   | Soil gas survey                                 |
| SOW   | Scope of work                                   |
| TCLP  | Toxicity characteristic leaching procedure      |
| TGD   | Technical guidance document                     |
| TRBCA | Tennessee risk-based corrective action          |
| UST   | Underground storage tank                        |

### **III. REIMBURSEMENT APPLICATION DATABASE INSTRUCTIONS**

An Access<sup>®</sup> database has been developed to prepare and submit electronic applications. The database is available for download from the Division's website:

[www.tn.gov/environment/underground-storage-tanks/](http://www.tn.gov/environment/underground-storage-tanks/)

Applications, appeals, questions, comments, etc. should be submitted to:  
[ust.reimbursement@tn.gov](mailto:ust.reimbursement@tn.gov)

### **IV. REIMBURSEMENT APPLICATION GUIDELINES**

In order to receive reimbursement, all reimbursement applications must be submitted within one (1) year of the date the work is performed.

#### **A. Initial Reimbursement Application**

After a new release has been confirmed, a Fund eligibility application shall be prepared and submitted. The initial reimbursement application shall not be submitted until Fund eligibility has been determined. If Fund eligibility is approved, then the Division will send a confirmation letter and include the applicable deductible. At this point, an



initial reimbursement application may be submitted. If Fund eligibility is denied, then the Division will notify the responsible party with a denial letter. This letter will also include information on the appeal process. If Fund eligibility is denied, then an initial application may be submitted during the Fund eligibility appeal process, but will not be reviewed by the Division. Some sites may not require corrective action that would result in the submittal of subsequent applications.

**B. Subsequent Reimbursement Applications**

Subsequent applications may be submitted at the completion of each cleanup activity provided they are submitted within one (1) year from the date performed.

**C. Final Reimbursement Application**

The final application shall be submitted within one (1) year of contamination case closure issued by the Division.

**V. ELIGIBLE COSTS**

The following processes include common tasks that are eligible for reimbursement with Division approval.

**A. UST System Closure Process**

1. Overexcavation of contaminated material after the first 100 cubic yards of native material has been removed
2. Sample collection after overexcavation and/or recharge of groundwater into the tank pit
3. Soil and water laboratory analysis, including routine shipping charges, after overexcavation and/or recharge of groundwater into the tank pit
4. Disposal of contaminated soil (including contaminated backfill), contaminated water, and/or free product
5. Installation and sampling of monitoring well required for risk-based closure
6. Preparation of a risk-based closure report

**B. Hazard Management Process**

1. Alternate water supply — installing water taps, hookup to public water supply, filtration system, and/or drilling a new well. This also includes abandonment of public or private water supplies that are no longer in use.
2. Rental of equipment that deals with emergency response (i.e., vapor abatement)
3. Recovery of free product
4. Sample collection
5. Soil, water, and air laboratory analysis, including routine shipping charges
6. Disposal of contaminated soil, contaminated water, and/or free product
7. Preparation of required submittals

**C. Release Investigation Process**

1. Installation of soil borings and/or monitoring wells
2. Rental of equipment relative to the investigation of the contaminated site
3. Tank tightness tests (if used for a required investigation by the Division)

4. Sample collection
5. Soil and water laboratory analysis, including routine shipping charges
6. Disposal of contaminated soil, contaminated water, and/or free product
7. Preparation of required submittals

**D. Risk Management and Corrective Action Process**

1. Public notice advertisements for corrective action
2. Construction, operation, and maintenance of approved treatment systems
3. Telephone charges associated with a telemetry system (must be plainly stated on the reimbursement application)
4. Rental of equipment that deals with remediation of the contaminated site
5. Installation of recovery wells, trenches, and associated piping
6. Sample collection
7. Soil, water, and air laboratory analysis, including routine shipping charges
8. Disposal of contaminated soil, contaminated water, and/or free product
9. Preparation of required submittals
10. Preparation of required permits
11. Obtaining necessary utility connections and service

**E. Final Site Closure Process**

1. Public notice advertisements for termination of a corrective action plan
2. Deactivation of the treatment system
3. Well abandonment
4. Decommissioning the treatment system
5. Site rehabilitation
6. Preparation of required submittals

**F. Miscellaneous**

1. Annual well fees (Shelby County) (no markup)
2. Color copy of topographic map (third party invoice required)
3. Bonds required by government agencies (no markup)
4. Preparation of required submittals

**VI. INELIGIBLE COSTS**

The following processes include common tasks and specific activities or costs that are not eligible for reimbursement.

**A. UST System Closure Process**

1. Activities associated with preparing, removing, and disposing of the tank system, including breaking and removing concrete, removing product from tanks, de-gassing tanks, etc.
2. Replacement backfill material for the volume of the excavated tank(s)
3. Completing an Application for Permanent Closure of Underground Storage Tank Systems, Permanent Closure Report (non risk-based report), Application for Fund Eligibility, and/or the Reimbursement Application
4. Expedited or rush charges for laboratory analysis of samples without prior Division approval

5. Field screening activities for the underground storage tank backfill material and the first 100 cubic yards of stockpiled soil
6. Rental/lease charges that exceed the purchase price of the equipment
7. Removal of backfill material in the tank pit and the first 100 cubic yards of overexcavated contaminated native material
8. Replacement of asphalt or concrete
9. Replacement, repair, maintenance, removal, and retrofitting of any UST system or interceptor trench
10. Samples required for tank closure

**B. Hazard Management Process**

1. Monthly water utility bills (if a public water connection was made in response to a release)
2. Utility deposits
3. Markup on utility bills and/or permits
4. Expedited or rush charges for laboratory analysis of samples without prior Division approval
5. Rental/lease charges that exceed the purchase price of the equipment
6. Replacement of asphalt or concrete (except for trenching with a corrective action system or interceptor trench)
7. Completing the Reimbursement Application

**C. Release Investigation Process**

1. Expedited or rush charges for laboratory analysis of samples without prior Division approval
2. Rental/lease charges that exceed the purchase price of the equipment
3. Completing the Reimbursement Application

**D. Risk Management and Corrective Action Process**

1. Monthly water utility bills (if a public water connection was made in response to a release)
2. Utility deposits
3. Markup on utility bills and/or permits
4. Expedited or rush charges for laboratory analysis of samples without prior Division approval
5. Rental/lease charges that exceed the purchase price of the equipment
6. Replacement of asphalt or concrete (except for trenching with a corrective action system)
7. Telephone charges not associated with a telemetry system
8. Completing the Reimbursement Application

**E. Final Site Closure Process**

- 5.1 Well abandonment permit (Shelby County)
- 5.2 Completing the Reimbursement Application

**F. Miscellaneous**

1. Any service for which the applicant will receive reimbursement from a commercial insurance carrier

2. Corrective action contractor costs
  - a. Any type of reference book, technical book, and/or guideline
  - b. Application or appeals for denied costs
  - c. Cellular or portable phone charges
  - d. Computer time, software, hardware, etc.
  - e. Copy machine and copies
  - f. Fax transmittals
  - g. General office supplies
  - h. Insurance
  - i. Notary services
  - j. Office equipment and miscellaneous office items
  - k. Overtime charges
  - l. Personnel protective equipment (chemical resistant suits, respirators, etc.)
  - m. Postage or express shipping of maps, photographs, reports, etc.
  - n. Property title searches
  - o. Rental equipment insurance
  - p. Telephone charges not associated with a telemetry system
  - q. Video camcorder
  - r. Mark-up on sales tax
  - s. Mark-up on freight/shipping
3. Durable items which are not totally expended on one site such as raincoats, tools, shovels, etc.
4. Installation of leak detection
5. Legal fees
6. Loss of business revenues (business interruption)
7. Loss of petroleum product
8. Monthly water utility bills where the Division paid for connection to a public water supply
9. Responsible Party Costs
  - a. Administration costs including management, office time, and supplies
  - b. Any type of reference book, technical book, and/or guideline
  - c. Application or appeals for denied costs
  - d. Cellular or portable phone charges
  - e. Change of Corrective Action Contractor (CAC) and any costs associated with initial project set-up review, site reconnaissance, etc. including file reviews
  - f. Computer time, software, hardware, etc.
  - g. Copy machine and copies
  - h. Fax transmittals
  - i. General office supplies
  - j. Insurance
  - k. Notary services
  - l. Office equipment and miscellaneous office items
  - m. Overtime charges
  - n. Personnel protective equipment (chemical resistant suits, respirators, etc.)
  - o. Postage or express shipping of maps, photographs, reports, etc.
  - p. Property tax
  - q. Property title searches
  - r. Rental equipment insurance
  - s. Telephone charges not associated with a telemetry system

- t. Video camcorder
  - u. Mark-up on sales tax
  - v. Mark-up on freight/shipping
- 10. Tank tightness tests used for routine release detection
- 11. Technical Guidance Document - 013, Fund Eligibility site check
- 12. Travel
  - a. Any travel outside of the state of Tennessee
  - b. Mileage within Tennessee over 250 miles per round trip
  - c. Airfare and/or car rentals
  - d. Company car and/or truck rental
  - e. Markup on per diem
- 13. Underground locator services (unless service is guaranteed in writing)

## VII. PERSONNEL DESCRIPTIONS AND RATES

### A. Staff Descriptions

Only the job titles and classifications listed below may be used for reimbursement purposes. **Any qualified professional who performs a task of a lesser-qualified person should be billed at the rate of that job task.** For example, a person who meets the experience and education of a Geologist, but performs the task of digging a trench, hand augering, bailing wells, etc. should be billed at the rate of a Technician. All onsite personnel shall have the appropriate health and safety certifications. Prior to beginning any task, the Excel<sup>®</sup> cost tasks and associated cost spreadsheets should be consulted to ensure that the proper personnel and equipment will be used in order to be Fund reimbursable. See section IX for cost task descriptions.

**CAD Operator:** This person must have the ability to develop scaled maps, engineering drawings, and contour maps using CAD computer programming software. The CAD computer operator must have a degree in information systems analysis, CAD computer programming, or possess CAD technical certification.

**CAS Specialist:** This person must have attended, received and maintain satisfactory certification from a Division approved manufacturer of high vacuum dual phase remediation systems. Annual recertification is required to bill this title. CAS Specialist Certificate must be submitted to: [ust.reimbursement@tn.gov](mailto:ust.reimbursement@tn.gov)

**Construction Foreman:** This person must have completed all appropriate personal protection and safety courses, have three (3) years' experience in UST or hazardous substance site work, field supervision experience, and be supervising a construction crew.

**Engineer:** This person must be a professional engineer licensed in the State of Tennessee.

**Environmental Specialist:** This person must have a Bachelor of Engineering (BE) or Bachelor of Science (BS) or postgraduate degree in biology, engineering, environmental science, geology, industrial hygiene, soil science, or another science field acceptable to the Division from an accredited four (4) year college.

**General Laborer:** This person must have completed the appropriate personal health and safety courses. General laborer includes surveyor helpers, construction workers, and other site workers that have not been included in other billing classifications.

**Geologist:** This person must be a professional geologist licensed in the State of Tennessee.

**Heavy Equipment Operator:** This person must be knowledgeable of the capabilities and limitations of the equipment being used and is familiar with all applicable laws and regulations governing its use. Equipment operators must have current health and safety training.

**Project Manager:** This person must have five (5) years full-time experience in investigation, remedial planning or design phases of environmental project management. This person must have a BE, BS or postgraduate degree in engineering, geology, or other appropriate science. This person must also have supervisory and project management experience. Postgraduate work in an appropriate science may be substituted on a year for year basis for experience for a maximum of two (2) years.

**Secretary:** This person must possess computer skills and carry out general clerical duties, including contract administration and payment of utility bills. Clerical support and other office workers shall be included in this category.

**Senior Environmental Specialist:** This person must have a BA, BE, BS or postgraduate degree in biology, engineering, environmental science, industrial hygiene, soil science, or another science field acceptable to the Division from an accredited four (4) year college and have at least five (5) years of UST related work and/or hazardous substance remedial activities.

**Senior Technician:** This person must have completed appropriate personal safety and sampling courses and have at least three (3) years of experience working in the environmental field at hazardous substance or UST sites. All technicians must be high school graduates or have passed the general equivalency diploma (GED) test.

**Surveyor:** This person must have the ability to take linear and angular measurements and apply the principles of geometry and trigonometry to delineate the form, extent, position, etc., of a tract of land. This person must be licensed in Tennessee as a surveyor.

**Technician:** This person must have completed appropriate personal safety and sampling courses and have at least one (1) year of experience working in the environmental field at hazardous substance or UST sites. All technicians must be high school graduates or have passed the general equivalency diploma (GED) test.

**Truck Driver:** This person must be knowledgeable of all Tennessee motor vehicle laws and regulations as well as hold all licenses required for the type of motor vehicle operated.

**B. Table of Reimbursable Tasks**

| <b>Field Staff Description</b>  | <b>Reimbursable Tasks</b>   |
|---------------------------------|---|
| CAS Specialist                  | Routine/non-routine O&M, deactivation and/or reactivation of a CAS  |
| Engineer                        | Assessment of remedial activities, overseeing drilling and monitoring well installation with appropriate geologic experience, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events |
| Environmental Specialist        | Assessment of remedial activities, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data   |
| Geologist                       | Assessment of remedial activities, overseeing drilling and monitoring well installation, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events                                      |
| Senior Environmental Specialist | Assessment of remedial activities, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events  |
| Senior Technician               | Routine sampling (monthly, quarterly, etc. of soil, water, etc.), free product removal, monitoring well abandonment oversight, installation/maintenance of skimmer pumps, O & M (routine and non-routine), deactivation and/or reactivation of a non-state owned CAS  |
| Technician                      | Tilling/disking, gauging, installation/replacements of booms/pads, deactivation and/or reactivation of CAS, site restoration, O & M (routine and non-routine) of non-state owned CAS  |

**C. Table of Staff Rates**

| <b>Field Operations Staff</b>          | <b>Maximum Hourly Rate</b> |
|--|----------------------------|
| Surveyor                               | \$65.00                    |
| Construction foreman                   | \$50.00                    |
| Senior technician                      | \$55.00                    |
| Technician                             | \$45.00                    |
| Heavy equipment operator, Truck driver | \$35.00                    |
| General laborer                        | \$30.00                    |

| <b>Technical Staff</b>                               | <b>Maximum Hourly Rate</b> |
|--|----------------------------|
| Project Manager                                      | \$95.00                    |
| Engineer, Geologist, Senior Environmental Specialist | \$80.00                    |
| Environmental Specialist                             | \$65.00                    |
| CAS Specialist                                       | \$65.00                    |
| CAD Operator   | \$50.00                    |

| <b>Administrative Staff</b> | <b>Maximum Hourly Rate</b> |
|-----------------------------|----------------------------|
| Secretary                   | \$30.00                    |

## VIII. REASONABLE REIMBURSEMENT RATES

### A. Equipment

Construction equipment rental rates already include allowances for peripheral equipment attachments, depreciation, maintenance, field repairs, fuel, permits, lubricants, tires, OSHA equipment, insurance, equipment shelter and security, overhead, markup, and administrative costs. If the equipment size is not specified, then the lowest rate will be applied.

| <b>Excavating Equipment</b>                           | <b>Per Day</b> | <b>Per Week</b> |             |
|---|----------------|-----------------|-------------|
| Trencher (walk behind)                                | \$144.00       | \$432.00        |             |
| Trencher (ride on)                                    | \$255.00       | \$765.00        |             |
| Skid steer loader (bobcat)                            | \$188.00       | \$564.00        |             |
| Pavement/concrete breaker for bobcat                  | \$200.00       | \$600.00        |             |
| Backhoe (all types)                                   | \$255.00       | \$765.00        |             |
| Pavement/concrete breaker for backhoe                 | \$275.00       | \$825.00        |             |
| Trackhoe ½ yd <sup>3</sup>                            | \$575.00       | \$1,725.00      |             |
| Trackhoe ¾ yd <sup>3</sup>                            | \$674.00       | \$2,022.00      |             |
| Trackhoe 1 yd <sup>3</sup>                            | \$834.00       | \$2,502.00      |             |
| Crawler loader 1 yd <sup>3</sup>                      | \$470.00       | \$1,410.00      |             |
| Dozer   | \$468.00       | \$1,404.00      |             |
| Field tractor and attachment                          | \$253.00       | \$759.00        |             |
| Dump truck 15 yd <sup>3</sup> and larger (w/o driver) | \$78.00/hr     |                 |             |
| <b>Mobilization and Demobilization</b>                |                |                 | <b>Rate</b> |
| Excavation equipment (cost/mile)                      |                |                 | \$1.25      |
| Maximum billing (250 miles round trip)                |                |                 | \$312.50    |

| <b>Support Equipment</b>  | <b>Per Day</b> | <b>Per Week</b> |  |
|---|----------------|-----------------|--|
| 5 kW generator  | \$87.00        | \$261.00        |  |
| 50 kW generator   | \$258.00       | \$774.00        |  |
| 3,000 psi pressure washer   | \$55.00        | \$165.00        |  |
| Explosion proof evacuation fan<br>(12,000 ft <sup>3</sup> /min air movement)<br>(mobilization included in daily rate) | \$75.00        | \$125.00        |  |

| <b>Miscellaneous Tools And Supplies</b> | <b>Per Day</b> | <b>Per Week</b> |  |
|---|----------------|-----------------|--|
| Air jackhammer with bit and hose        | \$60.00        |                 |  |
| Electric jackhammer with bit            | \$75.00        |                 |  |
| Slide hammer and vapor probe kit        | \$133.00       |                 |  |
| Hammer drill and vapor probe kit        | \$195.00       |                 |  |
| Crane (17-ton skyhook)                  | \$667.00       | \$2,001.00      |  |



|  |          |          |  |
|--|----------|----------|--|
| Plate compactor/tamper                                       | \$75.00  | \$200.00 |  |
| Utility trailer  | \$25.00  |          |  |
| Compressor 100 CFM, gas powered                              | \$75.00  |          |  |
| Compressor 175 CFM, gas powered                              | \$109.00 |          |  |
| Concrete saw with blade                                      | \$90.00  |          |  |
| Hydrocarbon skimmer pump (self-leveling)                     | \$40.00  | \$120.00 |  |
| Submersible well development pump (electric) 2-inch diameter | \$42.00  |          |  |
| Self-priming centrifugal pump (trash) 4-inch discharge       | \$65.00  |          |  |
| Welder/supplies/fuel   | \$60.00  |          |  |

| Portable Field Instruments  | Per Day  | Per Week | > 1 Week per day |
|---|----------|----------|------------------|
|   |          |          |                  |
| Combustible gas indicator/with oxygen meter                           | \$45.00  |          |                  |
| Oxygen meter (dissolved/reduced)                                      | \$40.00  |          |                  |
| OVD - PID   | \$89.00  |          |                  |
| OVD - FID   | \$105.00 |          |                  |
| Multi-gas meter (O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> ) | \$68.00  |          |                  |
| Oil/water interface probe   | \$55.00  |          |                  |
| Turbidity meter (approved CAP only)                                   | \$31.00  |          |                  |
| Electronic water-level indicator                                      | \$25.00  |          |                  |
| Manometer   | \$25.00  |          |                  |
| pH meter (approved discharge only)                                    | \$27.00  |          |                  |
| Velocity meter  | \$45.00  |          |                  |
| Flow regulator (air samples only)                                     | \$60.00  |          |                  |
| SUMMA Canister  | \$50.00  |          |                  |

| Equipment/Supplies  | Unit Cost   |
|---|-------------|
| Disposable bailer   | \$10.00     |
| Petroleum absorbent booms (8 inch diameter, 10 ft. sections)  | \$55.00     |
| Petroleum absorbent pads (3/16", 18" x 18", 100 count)  | \$70.00     |
| Petroleum absorbent pads (3/8", 18" x 18", 100 count)   | \$88.00     |
| Petroleum absorbent sweeps (18" x 100' x 3/8")  | \$108.00    |
| Reconditioned drums (17-H, 55-gallon)   | \$41.00     |
| Soil and well sampling supplies (includes, but not limited to, ice, disposal of samples, twine or string, latex gloves, and decontamination materials. These supply costs are per sampling event and not per well.) | \$20.00     |
| 0.45 micron water filter (PAHs and metals sampling)   | \$20.00     |
| Safety cones, barricades, caution tape  | \$10.00/day |
| Straw bales   | \$5.00      |
| Grass seed (contractor – 10 lb)   | \$10.00     |

## B. Vehicles

Reimbursement is only for mileage within Tennessee with a **maximum** 250 miles round trip. If the vehicle size is not specified, the lowest rate will be applied.

| Vehicle                                   | Rate     |
|---|----------|
| Autos/pick-up trucks (cost/mile)          | \$0.47*  |
| Three/quarter (3/4) ton truck (cost/mile) | \$0.75   |
| Vacuum truck/with driver cost/hour        | \$138.00 |

\*Mileage shall be reimbursed in accordance with the state of TN travel regulations in effect at the time that work was performed. Current travel regulations can be found at: [www.tn.gov/finance/act/documents/policy8.pdf](http://www.tn.gov/finance/act/documents/policy8.pdf)

| Mobilization and Demobilization        | Rate     |
|--|----------|
| Vacuum truck with driver (cost/mile)   | \$2.25   |
| Maximum billing (250 miles round trip) | \$562.50 |

### C. Disposal and Treatment of Contaminated Soil

Contaminated soil and clean soil must be segregated. **Disposal of soil with contaminant concentrations below the Division's Site Specific Clean-up Levels will not be reimbursed.** All invoices and weight tickets shall be submitted regardless of the treatment method. **Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rates:**

| Treatment                                   | Per Ton   |
|---|-----------|
| Land farming                                | \$28.00   |
| Landfill                                    | cost + 5% |
| Transportation (less than 50 miles one way) | \$11.00   |
| Transportation (50 – 100 miles one way)     | \$20.00   |
| Transportation (over 100 miles one way)     | \$24.50   |

### D. Disposal and Treatment of Contaminated Water

Reimbursement is limited to water treated at a permitted water treatment facility. The Fund will not pay a per gallon rate for water treated on site. **Disposal and/or treatment of water with contaminant concentrations below the Division's Initial Screening Levels will not be reimbursed.** Original invoices and manifests, including the volume of water treated shall be submitted. **Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rate (rate already includes transportation):**

| Contents | Per Gallon |
|----------|------------|
| Water    | \$0.55     |

### E. Drum Disposal of Contaminated Soil and/or Water

Soil and water that is drummed is not considered the most efficient way of handling contamination and will be scrutinized. **Disposal and/or treatment of soil and/or water with contaminant concentrations below the Division's Site Specific Clean-up Levels will not be reimbursed.** Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rates (rates already include transportation):

| Contents               | Per Drum |
|------------------------|----------|
| Water                  | \$90.00  |
| Soil                   | \$90.00  |
| Used booms, pads, etc. | \$90.00  |

## F. Drilling

Equipment included in mobilization/demobilization costs are: rig, support vehicles, steam cleaner, grout plant, trailers, and crew. Price per foot costs include: drill rig, set up fee, installation, development, sand, bentonite, cement, flush mount manhole, lock, end plug, casing, and screen. CACs should negotiate prices with drillers prior to drilling. **Reimbursement will be limited to actual costs plus a maximum 15% markup not to exceed the following rates:**

| Drilling Method and Equipment   | Rate        |
|---|-------------|
| Auger rig/core rig/wash rotary rig<br>(cost/mile with a maximum of 250 miles round trip)                                    | \$3.00      |
| Air Rotary Rig (cost/mile with a maximum of 250 miles round trip)   | \$4.25      |
| Auger drilling [cost/foot including two (2) man crew]   |             |
| Two (2) inch wells  | \$36.00     |
| Four (4) inch wells   | \$45.00     |
| Air rotary drilling [cost/foot including two (2) man crew]  |             |
| Two (2) inch wells  | \$48.00     |
| Four (4) inch wells   | \$57.00     |
| Double cased well [cost/foot to drill and install outside casing<br>including two (2) man crew, steel casing, and grouting] |             |
| Six (6) inch  | \$64.00     |
| Eight (8) inch  | \$76.00     |
| Well abandonment (includes licensed well driller, equipment, and<br>supplies)(cost/foot)                                    | \$11.00     |
| Borings (cost/foot)   | \$16.00     |
| Decontamination of rig and tools (cost/boring includes steam cleaner<br>rental)   | \$125.00    |
| Standby time not due to the driller (cost/day with maximum of 1 hour)   | \$150.00    |
| Third man for drilling (cost/hour)  | \$30.00     |
| Water tight bolt down manhole (one per well - all sizes)  | \$68.00     |
| Centralizers-stainless steel (cost/per unit)  |             |
| Two (2) inch  | \$26.00     |
| Four (4) inch   | \$28.00     |
| Concrete penetration (cost/hole)  | \$99.00     |
| Removal of manhole cover and well pad (cost/well)   | \$125.00    |
| Recovery well vaults (2'x2'x2') (must actually be removed)  | \$300.00    |
| Freight charges on well installation, drilling supplies, casing, screen,<br>bentonite, etc.                                 | Actual cost |

| Direct Push Technology and Equipment  | Rate       |
|---|------------|
| Mobilization/demobilization<br>(cost/mile with a maximum of 250 miles round trip) | \$2.35     |
| Direct push [cost/day including a two (2) man crew]                               | \$1,640.00 |
| Direct push [cost/half-day including a two (2) man crew]                          | \$1,240.00 |
| Soil sample liners (cost/unit)  | \$5.95     |

|   |         |
|---|---------|
| Soil gas survey sample train using nylon tubing (cost/sample train) | \$29.00 |
| Expendable probe points (cost/unit)                                 | \$11.00 |
| Expendable soil gas probe points (cost/unit)                        | \$22.00 |
| Temporary well (cost/foot)  | \$5.00  |
| Bentonite (cost/50-lb bag)  | \$15.00 |

| Sampling Method   | Rate    |
|---|---------|
| Split spoon sampling (ASTM-D1586) [cost/two (2) foot sampler] | \$21.00 |
| Continuous sampling [cost/five (5) foot sampler]              | \$48.00 |

## G. Laboratory Analyses

Invoices must include the Facility ID number. Only analytical results required by the Division will be reimbursed. NPDES, POTW, TCLP, and other required costs associated with approved Division activities will also be reimbursed. **If GRO and/or EPH are required to be sampled for permit requirements, then you must submit a copy of the discharge approval letter with the reimbursement application.**

The chain of custody for the samples should always be submitted with any analytical charges. Samples received by the laboratory above the required temperature of 4 degrees Celsius will not be reimbursed. When sampling a drinking water supply, the detection limit shall not exceed the established MCL for that constituent. Any sample that fails to meet minimum detection limits will not be reimbursed. **The following analytical results will be reimbursed at actual cost plus a maximum 15% markup not to exceed the following rates:**

| Soil Samples                      |                  | Maximum Rate (Includes Mark-up) |
|-----------------------------------|------------------|---------------------------------|
| Chemical of Concern               | Method           |                                 |
| BTEX, MtBE, Naphthalene           | Method 8260B     | \$86.00                         |
| BTEX, MtBE, Naphthalene, EDB, EDC | Method 8260B     | \$149.00                        |
| Metals (Cd, Cr, Pb, Ag, Zn)       | Method 6010/3050 | \$110.00                        |
| Lead (Pb) only                    | Method 6010/3050 | \$34.00                         |
| TCLP                              | Method 1311      | \$479.00                        |
|                                   |                  |                                 |

| Water Samples                            |                        | Maximum Rate (Includes Mark-up) |
|--|------------------------|---------------------------------|
| Chemical of Concern                      | Method                 |                                 |
| BTEX, MtBE, Naphthalene                  | Method 8260B           | \$96.00                         |
| BTEX, MtBE, Naphthalene, EDB, EDC        | Method 8260B           | \$146.00                        |
| EDB only                                 | Method 8011            | \$86.00                         |
| PAHs                                     | Method 8270C-SIM/8310  | \$202.00                        |
| Metals (Cd, Cr, Pb, Ag, Zn)              | Method 6010            | \$79.00                         |
| Metals (Cd, Cr, Pb) only                 | Method 6010            | \$58.00                         |
| Lead (Pb) only                           | Method 6010            | \$35.00                         |
| Oil & Grease                             | Method 1664 Revision B | \$58.00                         |
| Total suspended solids                   | Method 160.2           | \$21.00                         |
| Extractable Petroleum Hydrocarbons (EPH) | TN EPH                 | \$85.00                         |

|                                       |             |            |
|---------------------------------------|-------------|------------|
| LC50 Toxicity Test                    | Method LC50 | \$1,275.00 |
| IC25 Toxicity Test                    | Method IC25 | \$1,390.00 |
| Fe, Mn for groundwater classification | NPDES       | \$57.00    |

| <b>Air Samples</b>  |   | <b>Maximum Rate (Includes Mark-up)</b> |
|---|---|--|
| <b>Chemical of Concern</b>  | <b>Method</b>                                 |  |
| BTEX, MtBE, Naphthalene, Isopropyl Alcohol  | Method TO-15                                  | \$295.00                               |
| Percent O <sub>2</sub> and CO <sub>2</sub> (must be analyzed concurrently from SUMMA <sup>®</sup> sample above) | Method ASTM 1945/1946/ D5314 or EPA Method 3C | \$243.00                               |

## H. Travel Expenses and Per Diem

Meals will not be reimbursed without a corresponding hotel/motel receipt. Only one (1) day of meals will be reimbursed per overnight stay.

| <b>Professional Travel/per-diem*</b> | <b>Maximum Lodging Costs</b> | <b>Maximum Meals &amp; Incidental Costs</b> |
|--------------------------------------|------------------------------|---|
| Davidson (Nashville)                 | \$122.00                     | \$66.00                                     |
| Shelby (Memphis)                     | \$99.00                      | \$61.00                                     |
| Williamson (Brentwood/Franklin)      | \$102.00                     | \$56.00                                     |
| Hamilton (Chattanooga)               | \$95.00                      | \$56.00                                     |
| Knox (Knoxville)                     | \$90.00                      | \$56.00                                     |
| Anderson (Oak Ridge)                 | \$88.00                      | \$46.00                                     |
| All other counties                   | \$83.00                      | \$46.00                                     |

| <b>Professional Travel Time</b>                                   | <b>Maximum Hours</b> |
|---|----------------------|
| One-way per trip based on professional staff description and rate | 2                    |
| Round trip based on professional staff description and rate       | 4                    |

\*Lodging and per diem shall be reimbursed in accordance with the state of TN travel regulations in effect at the time that the work was performed. Current travel regulations can be found at:

[www.tn.gov/finance/act/documents/policy8.pdf](http://www.tn.gov/finance/act/documents/policy8.pdf)

## I. Other

Each task provides a maximum cost. This cost represents the maximum the Division may reimburse if the work is acceptable and conducted as approved. Only actual charges, not the maximum, will be reimbursed. For example, a task may provide a maximum of up to ten (10) hours to conduct the work but the actual work performed by contractor personnel was five (5) hours. Only five (5) hours may be requested for reimbursement.

A detailed time sheet and/or field log/book shall be kept for every UST task conducted although they may not be required to be submitted with the application. The Division may request these to verify claim amounts. Time reporting should be broken into fifteen (15) minute increments (i.e. 0.25 hr; 1.75 hrs; etc.)

## IX. TASK DESCRIPTIONS

### 1.0 UST SYSTEM CLOSURE PROCESS

#### TASK 1.1 OVEREXCAVATION

##### 1.1.a Cost for excavating soil and stockpiling during UST Closure

This SOW will include all necessary personnel and labor, equipment and supplies to excavate, screen, collect samples and properly stockpile contaminated soil during an UST system closure as per Closure Assessment Guidelines. Cost includes all sampling supplies. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Reimbursement is limited to excavation and stockpiling of contaminated soil. **Soil contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method.** Routine overexcavation shall not exceed three (3) workdays (maximum 10-hour workday) without prior approval from the appropriate Field Office. **Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$3,009.00 per day equipment rental.**

##### 1.1.b Cost for mobilization and demobilization of heavy equipment

This SOW will include mobilization and demobilization of the trackhoe or backhoe to and from the site. **Maximum cost is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50.**

##### 1.1.c Cost for loading stockpiled contaminated soil for disposal

This SOW will include all necessary personnel and labor, equipment, and supplies for loading petroleum contaminated soil for proper disposal at a permitted facility. **The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report.** Routine loading shall not exceed one (1) workday (maximum 10-hour workday). **Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$1,984.00 per day equipment rental.**

##### 1.1.d Cost for laboratory services

This SOW will include any soil laboratory analysis not associated with a boring or monitoring well installation. These samples may include, but are not necessarily limited to, samples from a tank pit, samples of a stockpile for disposal or treatment, interceptor trench, or samples that are obtained by hand augering. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method, established in Reference 1.

**1.1.e Cost for replacement backfill material during any type of overexcavation**

This SOW consists of the cost for replacement backfill material to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s) with a like material. **The volume of the backfill material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report minus the volume of the tank void. Backfill must be acquired/purchased locally whenever possible.**

**Cost plus 15% markup which includes transportation costs.**

**1.1.f Cost for backfilling the tank pit and/or associated piping trench(s) during overexcavation**

This SOW consists of all necessary personnel and labor, equipment and materials to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s). Routine backfilling shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate Field Office.

**Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$3,009.00 per day equipment rental.**

## 1.0 UST SYSTEM CLOSURE PROCESS

### **Task 1.2 Ground Water/Free Product Removal**

#### **1.2.a Cost for removing contaminated ground water and/or free product using a vacuum/pump truck**

This SOW will include all necessary equipment (such as a vacuum or pump truck) and personnel time (such as truck driver, or technician and CAC), to monitor the removal of contaminated ground water and/or free product from a tank excavation, pit, trench, vault, etc. **Ground water contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method.** This SOW does not include the cost of laboratory analyses of samples collected. Routine ground water/free product removal shall not exceed eight (8) hours without prior Division approval.

**Maximum cost is \$218.00 per hour (or \$1,744.00 per day).**

#### **1.2.b Cost for mobilization and demobilization of vacuum/pump truck**

This SOW will include mobilization and demobilization of the vacuum truck or pump truck to and from site for ground water/free product removal.

**Maximum cost is limited to \$2.25 per mile. Total maximum cost of \$562.50.**

#### **1.2.c Cost for inspecting/sampling tank pit for ground water recharge**

This SOW will include any personnel time and all sampling supplies to inspect and/or collect a ground water sample for laboratory analysis from a tank pit, utility trench, or interceptor trench. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Maximum on-site personnel time limited to two (2) hours. (Do not use the Sampling button in the cost database to enter costs for this task).

**Maximum number of samples is two (2) per tank pit and/or two (2) per installation.**

**Maximum cost is \$150.00 per event.**

#### **1.2.d Cost for laboratory services**

This SOW will include any ground water laboratory analysis not associated with a boring or monitoring well installation. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**



**1.2.e Cost for disposal of free product and/or ground water contaminated with petroleum product**

This SOW consists of disposal of free product and/or ground water contaminated with petroleum product removed from a tank pit, trench, etc. **The volume of free product and/or ground water contaminated with petroleum product requested for reimbursement must agree with the volume documented in the Permanent Closure Report.** Ground water contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method. The Fund will not pay a per gallon rate for water treated on site.

**Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55 per gallon.**

## **1.0 UST SYSTEM CLOSURE PROCESS**

### **Task 1.3 Soil Treatment/ Disposal**

#### **Task 1.3.a Soil Treatment by Aeration**

##### **1.3.a.1 Cost for mobilization and setup for treatment of contaminated soil by aeration**

This SOW will include either on-site or off-site natural attenuation of petroleum-contaminated soil by aeration. This SOW will include all necessary hauling, personnel and labor, equipment, and supplies (i.e. plastic sheeting, straw bales, etc.). **The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report.** **Maximum cost is \$2,160.00 per closure event and/or approved application.**

##### **1.3.a.2 Cost for tilling and/or disking of contaminated soil**

This SOW consists of tilling and/or disking the petroleum contaminated soil generated at underground storage tank sites. Tilling and/or disking shall be conducted at a minimum of once per month and not to exceed two (2) times a month. Routine tilling and/or disking shall not exceed four hours on site time. Cost includes personnel and equipment. **Maximum cost is \$395.00.**

##### **1.3.a.3 Cost for inspecting and maintaining the integrity of the treatment cell**

This SOW will include all personnel time and equipment necessary to inspect and maintain the integrity of the treatment cell not to exceed one (1) time per month. Routine inspecting and/or maintaining shall not exceed four (4) hours on site technician time. Cost includes all personnel time, replacement of plastic sheeting, straw bales, etc. **Maximum cost is \$405.00 per event.**

##### **1.3.a.4 Cost for sampling soil treated by aeration**

This SOW will include sampling the treated soil in accordance with TGD-009 and the approved application. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Sampling events shall be performed at a minimum, semi-annually and have prior written approval by the Division. Routine sampling shall not exceed two (2) hours on site personnel time. Cost includes all personnel time, a PID/FID, and all sampling supplies. **Maximum cost is \$235.00 per event.**

#### **1.3.a.5 Cost for laboratory services**

This SOW will include any soil laboratory analysis from a treated stockpile. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method, established in Reference 1.**

## 1.0 UST SYSTEM CLOSURE PROCESS

### Task 1.3 Soil Treatment/ Disposal

#### Task 1.3.b Hauling and Soil Disposal by Landfilling

This task may also be used anytime excavated petroleum contaminated soil is disposed at a landfill.

##### **1.3.b.1 Cost of scheduling for hauling and landfilling petroleum contaminated soil**

This SOW will include all necessary contracting and scheduling for disposal of petroleum contaminated soil at a permitted landfill facility. Work shall not exceed two (2) hours. Maximum cost is \$95.00 per hour.

**Maximum cost is \$190.00 per event.**

##### **1.3.b.2 Cost for hauling petroleum contaminated soil**

This SOW will include all costs necessary for hauling (including driver) petroleum contaminated soil to a permitted landfill. **Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed.** The most cost effective alternative (including transportation) must be chosen. Backup documentation must include original invoices and weight tickets.

| <b>Treatment</b>                    | <b>Per Ton</b> |
|-------------------------------------|----------------|
| Transportation (less than 50 miles) | \$11.00        |
| Transportation (50 – 100 miles)     | \$20.00        |
| Transportation (over 100 miles)     | \$24.50        |

##### **1.3.b.3 Cost for disposal of petroleum contaminated soil**

This SOW will include all costs necessary for disposal of petroleum contaminated soil at a permitted landfill. **Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed. Reimbursement will be limited to actual costs plus a maximum 5% markup.**

##### **1.3.b.4 Cost for disposal of petroleum contaminated soil in drums**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

## **1.0 UST SYSTEM CLOSURE PROCESS**

### **Task 1.3 Soil Treatment/ Disposal**

#### **Task 1.3.c Soil Treatment by Landfarming**

##### **1.3.c.1 Cost of scheduling for landfarming petroleum contaminated soil**

This SOW will include all necessary contracting and scheduling for disposal of petroleum contaminated soil at a permitted landfarm facility. Work not to exceed two (2) hours. Maximum cost is \$95.00 per hour.

**Maximum cost is \$190.00 per event.**

##### **1.3.c.2 Cost for hauling petroleum contaminated soil**

This SOW will include all necessary hauling, personnel and labor, equipment, and supplies for landfarming petroleum contaminated soil at a permitted landfarm. **The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report.**

| <b>Treatment</b>                    | <b>Per Ton</b> |
|-------------------------------------|----------------|
| Transportation (less than 50 miles) | \$11.00        |
| Transportation (50 – 100 miles)     | \$20.00        |
| Transportation (over 100 miles)     | \$24.50        |

##### **1.3.c.3 Cost for landfarming of petroleum contaminated soil**

This SOW will include all costs necessary for landfarming of petroleum contaminated soil at a permitted facility.

**Maximum cost is \$28.00 per ton.**

## 1.0 UST SYSTEM CLOSURE PROCESS

### Task 1.4 TRBCA Closure Process

#### 1.4.a Cost for scheduling drilling event

This SOW will include all necessary contracting and scheduling for a driller to perform all phases of drilling (i.e. soil borings, installation of monitoring wells, perform well development, boring abandonment, and various other drilling tasks as needed). This SOW shall include the scheduling of field activities associated with the drilling event, including locating all underground utilities. This SOW shall also include all personnel cost necessary to acquire all well permits from the appropriate agency.

**Maximum cost is \$285.00.**

#### 1.4.b Cost for supervision of fieldwork

This SOW shall include oversight of field activities as well as office support and coordination. This SOW includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (*T.C.A. §62-36-101 et seq.*), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (*T.C.A. §62-2-101 et seq.*), and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, PID/FID, water level indicator/interface probe, and all sampling supplies. Included in the SOW, the consultant is required to complete all boring logs, well construction records, and collect all necessary soil samples including samples for soil disposal. Supervisory time should not exceed drilling time.

**Maximum cost per day is \$1,075.00.**

#### 1.4.c Cost for mobilization/demobilization of drill rig

This SOW will include mobilization and demobilization of the drill rig to and from the site. Mobilization/demobilization is not to exceed 250 miles round trip.

**Maximum cost is limited to \$3.00 per mile not to exceed a total cost of \$750.00 for an auger rig. Maximum cost is limited to \$4.25 per mile not to exceed a total cost of \$1,062.50 for an air rotary rig.**

#### 1.4.d Cost for drilling

This SOW will include support vehicles, steam cleaner, grout plant, trailers, and crew. Along with the invoice, the consultant must submit the appropriate reimbursement forms. All monitoring wells shall be installed and abandoned by a licensed well driller. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller. All wells are required to be properly developed prior to sampling. This includes surge blocking where needed.

#### **1.4.e Cost for well development**

This SOW will include all necessary personnel, labor, equipment and supplies to properly develop wells in accordance with the EAG twenty-four (24) hours after installation.

**Maximum cost per day is \$496.00.**

#### **1.4.f Cost for ground water sampling**

This SOW includes all personnel time to purge and sample wells of any depth or diameter. This SOW includes static water level measurements and purge volume calculations. This SOW includes all ground water sampling for primary and secondary Drinking Water Standards as required in the EAG. This SOW includes sampling of purge water for disposal. This SOW includes personnel time and supplies to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing). Includes cost of drum.

**Maximum cost is \$273.50 for one (1) well.**

#### **1.4.g Cost for laboratory services**

SOW includes laboratory costs associated with all sampling of soil and/or water. Consultant must attach the laboratory invoice to the reimbursement form. **Only analytical test(s) required by the current Closure Assessment Guidelines will be reimbursed.** The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**

#### **1.4.h Cost for water use and Karst survey**

This SOW includes preparation of a water use and Karst survey in accordance with the EAG. This SOW includes all fieldwork, telephone contacts and records search. This SOW includes the completion of the Water Use Survey Sheets. **This task is not repeatable unless requested/approved by the Division.**

**Maximum cost is \$890.00.**

#### **1.4.i Cost for disposal of free product and/or ground water contaminated with petroleum product**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose of free product and/or ground water contaminated with petroleum product removed from a monitoring well. Ground water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

**1.4.j Cost for disposal of petroleum contaminated soil**

This SOW will include all costs necessary for disposal of petroleum contaminated soil at a permitted landfill. **Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed. Reimbursement will be limited to actual costs plus a maximum 5% markup.**

**1.4.k Cost for disposal of petroleum contaminated soil in drums**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**



## 2.0 HAZARD MANAGEMENT PROCESS

### **Task 2.1 Interceptor/Recovery Trench Installation (with Division approval only)**

#### **2.1.a Cost for interceptor/recovery trench design and approval**

This SOW will include all personnel time to prepare a map for the proposed interceptor/recovery trench layout, plus cross sections and details as needed for proper construction. This SOW will include any project coordination time including cost estimates, equipment procurement/rental, and meeting with the responsible party and state regulators.

**Maximum cost is \$605.00.**

#### **2.1.b Cost for mobilization and demobilization of heavy equipment**

This SOW will include mobilization and demobilization of the trackhoe or backhoe to and from the site.

**Maximum cost is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50.**

#### **2.1.c Cost for interceptor/recovery trench installation**

This SOW will include all necessary personnel and labor, equipment and supplies to excavate, properly install and collect samples from a passive interceptor/recovery trench. Cost includes location of utilities and removal of any concrete, asphalt and/or soil during installation. Cost also includes all sampling supplies, and equipment and trench supplies such as a trackhoe or backhoe, well screens, piping, and sumps. Routine installation shall not exceed one (1) workday (maximum 10-hour work day) without prior approval from the appropriate Field Office.

**Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$2,494.00 per day equipment.**

#### **2.1.d Cost for loading stockpiled contaminated soil for disposal**

This SOW will include all necessary personnel and labor, equipment, and supplies for loading petroleum contaminated soil for proper disposal at a permitted facility. **The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the installation as reported in the Initial Response and Hazard Management Report.** Routine loading shall not exceed one (1) workday (maximum 10-hour work day).

**Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$1,984.00 per day equipment rental.**

#### **2.1.e Cost for replacement backfill material during any type of excavation**

This SOW consists of the cost for replacement backfill material to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s) with a like material. **The volume of the backfill material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report minus the**

**volume of the tank void. Backfill must be acquired/purchased locally whenever possible.**

**Cost plus 15% markup which includes transportation costs.**

**2.1.f Cost for repair/replacement of asphalt after interceptor/recovery trench installation**

This SOW will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition.

**Maximum cost is \$2.32 per square foot for asphalt.**

**2.1.g Cost for repair/replacement of concrete after interceptor/recovery trench installation**

This SOW will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition.

**Maximum cost is \$3.75 per square foot for concrete.**

**2.1.h Cost for repair/replacement of landscaping after interceptor/recovery trench installation**

This SOW will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition utilizing seed, mulch and straw by hand.

**Maximum cost is \$260.00.**

**2.1.i Cost for backfilling the void and/or associated trench(s) during excavation**

This SOW consists of all necessary personnel and labor, equipment and materials to properly backfill the void area(s) and/or associated trench(s). Routine backfilling shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate Field Office.

**Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$3,009.00 per day equipment rental.**

## 2.0 HAZARD MANAGEMENT PROCESS

### **Task 2.2 Ground Water/Free Product Removal from an Interceptor/Recovery Trench (with Division approval only)**

#### **2.2.a Cost for removing contaminated ground water and/or free product using a vacuum/pump truck from an interceptor/recovery trench**

This SOW will include all necessary equipment (such as a vacuum or pump truck) and personnel (such as truck driver, CAC or technician), to monitor the removal of contaminated ground water and/or free product from an interceptor/recovery trench installation. **Ground water contamination must be documented by an approved state of Tennessee laboratory method.** This SOW does not include the cost of laboratory analyses of samples collected.

**Maximum cost is \$193.00 per hour (or \$1,544.00 per day).**

#### **2.2.b Cost for mobilization and demobilization of vacuum/pump truck**

This SOW will include mobilization and demobilization of the vacuum truck or pump truck to and from site.

**Maximum cost is limited to \$2.25 per mile. Total maximum cost of \$562.50.**

#### **2.2.c Cost for ground water sample collected for laboratory analysis and supplies (not associated with a boring/monitoring well)**

This SOW will include any personnel time and sampling supplies to collect a ground water sample for laboratory analysis during interceptor/recovery trench installation. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Maximum on-site personnel time limited to two (2) hours.

**Maximum number of samples is two (2) per tank pit and/or two (2) per installation.**

**Maximum cost is \$150.00 per event.**

#### **2.2.d Cost for laboratory services**

This SOW will include any ground water laboratory analysis collected during interceptor/recovery trench installation. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1. Transportation costs to the laboratory should be included in this task.

**Maximum number of samples is two (2) per tank pit and/or two (2) per installation.**

**2.2.e Cost for disposal of free product and/or ground water contaminated with petroleum product**

This SOW consists of disposal of free product and/or ground water contaminated with petroleum product removed from a tank pit, trench, etc. **The volume of free product and/or ground water contaminated as defined by the applicable Closure Guidelines requested for reimbursement must agree with the volume documented in the Initial Response and Hazard Management Report.** Ground water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only. The Fund will not pay a per gallon rate for water treated on site.  
**Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55 per gallon.**

**2.2.f Cost for obtaining a temporary permit to POTW**

This SOW will include all personnel and labor to coordinate and prepare a permit application required by local POTW for temporary discharge of contaminated petroleum ground water.  
**Maximum cost is based on the actual permit fee required per municipality plus a maximum of two (2) hours personnel time (not to exceed \$160.00).**

**2.2.g Cost for obtaining a ground water sample collected to meet POTW discharge requirements**

This SOW will include all personnel and labor to collect a ground water sample for laboratory analysis to meet/establish POTW discharge permit requirements. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The frequency and sampling requirements for discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per discharge.  
**Maximum cost is \$75.00 per required sample.**

**2.2.h Cost for discharge to POTW**

This SOW will include all costs associated with the discharge of ground water/free product under the approved POTW permit. **The amount requested for reimbursement should agree with the volume (in gallons) reported discharged in the POTW report.**  
**Maximum cost is based on the actual discharge fee per gallon as charged by the POTW.**

## **2.0 HAZARD MANAGEMENT PROCESS**

### **Task 2.3 Free Product Removal by Hand Bailing (with Division approval only)**

#### **2.3.a Cost for removing free product by hand bailing**

This SOW will include all necessary personnel and labor, equipment (such as a gloves, bailers, twine, oil-water interface probe, and 55-gallon reconditioned drum) and labor (senior technician) to remove free product from a monitoring well or observation well and properly store when encountered. This SOW includes measurement and recording of ground water depths and product thickness in each well. **Work is not to exceed 8 hours. Task is limited to a maximum of two (2) events per month. Duration is not to exceed three (3) months unless otherwise directed by the Division.**

**Maximum cost is \$55.00 per hour (or a maximum of \$596.00 per event).**

#### **2.3.b Cost for disposal of free product**

This SOW consists of transportation and disposal of contaminated petroleum product removed from a monitoring well or observation well. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

## **2.0 HAZARD MANAGEMENT PROCESS**

### **Task 2.4 Mobile Enhanced Multi-phase Extraction (MEME)**

#### **2.4.a Cost for initial project setup**

This SOW will consist of review of the existing site data, and coordination and scheduling the MEME event.

**Maximum cost is \$160.00 per event.**

#### **2.4.b Cost for mobilization and demobilization of vacuum truck**

This SOW will include mobilization and demobilization of the vacuum truck to and from site. Mobilization/demobilization is not to exceed 250 miles round trip.

**Maximum cost is limited to \$2.25 per mile per piece of equipment. Total maximum cost of \$562.50.**

#### **2.4.c Cost for supervision of 8-hour MEME event field work**

This SOW will include all personnel time for the supervision of one (1) complete MEME event. This SOW includes one (1) field person to oversee MEME activities for a maximum of two (2) hours onsite.

**Maximum cost is \$160.00.**

#### **2.4.d Cost for performing an 8-hour MEME event**

This SOW will include the setup and performance of one (1) 8-hour MEME event according to the approved application. This SOW will include personnel and equipment to perform one (1) eight (8) hour MEME event. This SOW includes tabulating results (free product and ground water measurements before and after the event plus vacuum pressure on affected wells during the event), recording the amount of product and water recovered, vacuum radius of influence, etc. Required equipment also includes instrumentation for measuring temperature, velocity, relative humidity, and the concentration of emissions. Cost includes one (1) senior technician onsite for 10 hours: two (2) hours allowed for set-up and shut down and eight (8) hours for the actual MEME event.

**Maximum cost is \$3,125.50 per 8-hour event.**

#### **2.4.e Cost for performing a 24-hour MEME event**

This SOW will include the setup and performance of one (1) 24-hour MEME event according to the approved application. This SOW will include personnel and equipment to perform one (1) twenty four hour MEME event. This SOW includes tabulating results (free product and ground water measurements before and after the event plus vacuum pressure on affected wells during the event), recording the amount of product and water recovered, vacuum radius of influence, etc. Required equipment also includes instrumentation for measuring temperature, velocity, relative humidity, and the concentration of emissions. Cost includes one (1) senior technician onsite for 26 hours: two (2) hours allowed for set-up and shut down and 24 hours for the actual MEME event.

**Maximum cost is \$6,642.50 per 24-hour event.**

**2.4.f Cost for disposal of free product and/or ground water contaminated with petroleum product**

This SOW consists of disposal of free product and/or ground water contaminated with petroleum product removed during a MEME event. **The volume of free product and/or ground water contaminated with petroleum product requested for reimbursement must agree with the volume documented in the MEME Report.**

**Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55 per gallon.**

**2.4.g Cost for free product assessment after an 8-hour MEME event**

This SOW includes measurement and recording of ground water depth and product thickness of each well after a free product recovery event. The intent of this SOW is to determine if the free product recovery method should be continued. A recommendation shall be provided as to the status of free product in the wells and the most appropriate course of further action. Cost includes personnel and labor, equipment and supplies.

**Maximum cost is \$352.50 per event.**

**2.4.h Cost for laboratory services**

This SOW includes laboratory costs associated with all sampling of influent groundwater. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**

**2.4.i Cost for supervision of 24-hour MEME event field work**

This SOW will include all personnel time for the supervision of one (1) complete MEME event. This SOW includes one (1) field person to oversee 24-hour MEME activities, assembly of sample train and collection of influent water sample for a maximum of four (4) hours.

**Maximum cost is \$320.00.**

## 2.0 HAZARD MANAGEMENT PROCESS

### **Task 2.5 Free Product Recovery on Surface Water**

#### **2.5.a Cost for installation of absorbent pads and/or booms on surface water**

This SOW will include all personnel time to install/lay booms or absorbent pads (up to 50) to recover free-floating product from impacted surface waters. Personnel time includes time for two (2) employees [one (1) senior technician and one (1) technician]. This SOW includes all field materials used including absorbent booms, absorbent pads, polypropylene rope, steel fence posts, and field supplies.

**Maximum cost is \$260.00 per event.**

#### **2.5.b Cost for boom inspection and replacement**

This SOW will include all personnel time [for one (1) senior technician and one (1) technician] and materials to replace and/or repair absorbent booms placed on surface water to recover free product. **Task is limited to two (2) times per month. Duration is not to exceed three months unless otherwise directed by the Division.**

**Maximum cost is \$210.00 per event.**

#### **2.5.c Cost of drums for spent booms and/or absorbent pads**

This SOW will include all personnel time for purchasing and delivery of required drums to store used booms and/or absorbent pads. This SOW includes cost of drum. This SOW also includes properly sealing and labeling drums.

**Maximum cost is \$96.00 for initial drum and \$41.00 per additional drums.**

#### **2.5.d Cost for disposal of drums filled with spent booms and/or absorbent pads**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose of drums filled with spent booms and/or absorbent pads at a permitted disposal facility. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

#### **2.5.e Cost for specifying and purchasing a passive skimmer**

This SOW will include all necessary personnel time to properly specify and purchase a passive skimmer system to remove free product from surface water. Professional hours are limited to engineers, geologists, or environmental specialists not to exceed two (2) hours. **Cost of skimmer system is not to exceed \$1300.00/each.**

**Maximum cost is \$1,460.00.**

#### **2.5.f Cost for installation of a passive skimmer**

This SOW will include all necessary personnel (senior technician) and equipment to install a passive skimmer system to remove free product from surface water. **Work is not to exceed 2 hours.**

**Maximum cost is \$110.00.**



#### **2.5.g Cost for servicing a passive skimmer**

This SOW will include emptying free product and properly storing recovered product from surface water. This SOW includes all personnel (senior technician), miscellaneous equipment, and supplies. Task is limited to a maximum of two (2) events per month. **Work is not to exceed 2 hours. Maximum cost is \$110.00.**

## 2.0 HAZARD MANAGEMENT PROCESS

### **Task 2.6 Continuous Free Product Removal (with Division approval only)**

#### **2.6.a Cost for specifying and purchasing a passive skimmer**

This SOW will include all necessary personnel time to properly specify and purchase a passive skimmer system to remove free product from a monitoring well. Professional hours are not to exceed two (2) hours. **Cost of skimmer system is not to exceed \$800/each.**  
**Maximum cost is \$960.00.**

#### **2.6.b Cost for installation of a passive skimmer or absorbent pad/sock**

This SOW will include all necessary personnel (senior technician) and equipment to install a passive skimmer system or absorbent pad/sock to remove free product from a monitoring well. This SOW includes measurement and recording of ground water depths and product thickness in each well. **Work is not to exceed two (2) hours.**  
**Maximum cost is \$110.00.**

#### **2.6.c Cost for servicing a passive skimmer**

This SOW will include emptying free product and properly storing recovered product from a monitoring well. This SOW includes all personnel (senior technician), miscellaneous equipment, and supplies. **Work not to exceed two (2) hours. Task is limited to a maximum of two (2) events per month.**  
**Maximum cost is \$110.00.**

## **2.0 HAZARD MANAGEMENT PROCESS**

### **Task 2.7 Impacted Drinking Water Management**

#### **2.7.a Cost for temporary response activities**

This SOW will consist of notifying the groundwater user of impact to their water supply and delivery of bottled water or installation of a temporary purification system.

**Maximum cost is \$2,500.00 without an approved cost proposal. With an approved cost proposal, the maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **2.7.b Cost for permanent response activities**

This SOW will include the cost of the bid presented in the Permanent Source of Potable Water (PSPW) proposal, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

## **2.0 HAZARD MANAGEMENT PROCESS**

### **Task 2.8 Petroleum Vapor Impact Management**

#### **2.8.a Cost for temporary response activities**

This SOW will consist of notifying the affected occupants and/or property owners of impacted buildings or utility districts of impacted utilities concerning the vapor hazard and proposed temporary actions. This SOW also included implementation of temporary response actions.

**Maximum cost is \$2,500.00 without an approved cost proposal. With an approved cost proposal, the maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **2.8.b Cost for permanent response activities**

This SOW will include the cost of the bid presented in the Petroleum Vapor Permanent Abatement (PVPA) System Proposal, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **2.8.c Cost for permit and/or utility service**

This SOW includes all personnel time necessary to secure permits and/or utility connections with federal, state, and/or local government agency requirements.

**Maximum cost is \$160.00.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.1 Project Management**

##### **3.1.a Cost for initial project setup and review**

This SOW will include all personnel time to review existing site data, including incident information, past site history, agency requirements (NOD, NOV, etc.), previous assessments and remediation (closure reports, IRHMR, ISCR, etc.). This SOW assumes client will provide consultant with all available information plus all reimbursement documentation. **This task is not repeatable per release.**

**Maximum cost is \$600.00.**

##### **3.1.b Cost for site reconnaissance**

This SOW will include all personnel time to locate and identify potential receptors such as water wells, surface waters, basements, public utilities, and to locate and identify all potentially affected parties, including names and addresses. This SOW will also consist of gathering information about the site so that a detailed site map and site vicinity map can be later generated from field observation (i.e. location of discharge and extent, identification of all receptors, monitoring wells, and other site features). This SOW includes project manager oversight and staff level persons (or equal) to perform fieldwork, telephone coordination with property owners and local city and state government agencies. This SOW includes data review, evaluation and reporting (client, property owners, appropriate Field Office). If a previous consultant has already completed this task, then it should not be duplicated unless requested by the Division.

**Maximum cost is \$845.00.**

##### **3.1.c Cost for grant of access**

This SOW will include all personnel time to acquire a grant-of-access from adjacent and nearby property owners. Access purposes may include, but are not limited to borings and soil sampling, monitoring and recovery well installation, city or county waterline hookup, easements, etc.

**Maximum cost is \$320.00 per agreement.**

##### **3.1.d Cost for pre-Corrective Action Plan meeting**

This SOW will include the meeting held between Division personnel, the CAC and/or the responsible party, as deemed necessary by the Division prior to submission of a CAP. Topics for discussion shall include but not be limited to measured drawdown and radius of influence during the 24 hour MEME event, extraction rates for soil vapor and groundwater, number of extraction wells and number with free product, permit requirements (treated water, air, construction, etc.), electrical supply availability and local requirements, and site obstructions (hindrances to CAS delivery and/or placement). This may include any time for an on-site meeting. Maximum cost includes the time required for oversight by the Project Manager and a maximum of two (2) geologists/engineers to schedule, plan, and attend the meeting.

**Maximum cost is \$1,375.00 per meeting.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.2 System Test**

##### **3.2.a Cost for system test**

The UST system tightness testing is reimbursable for release investigations only. An approved tightness test for a release investigation will follow Rule 0400-18-01-.05(3)(a). All tightness test methods must be third party certified. **System tightness testing for system compliance is not reimbursable.**  
**Maximum cost is actual invoice cost from tightness tester.**

## 3.0 RELEASE INVESTIGATION PROCESS

### Task 3.3 Drilling

#### 3.3.a Cost for scheduling drilling event

This SOW will include all necessary contracting and scheduling for a driller to perform all phases of drilling (i.e. soil borings, installation of monitoring wells, vertical wells, remedial wells, perform well development, boring abandonment, and various other drilling tasks as needed). This SOW shall include the scheduling of field activities associated with the drilling event. This SOW shall include locating all underground utilities. This SOW shall also include all personnel time necessary to acquire all well permits from the appropriate agency.

**Maximum allowable cost is \$285.00.**

#### 3.3.b. Cost for mobilization/demobilization of drill rig

This SOW will include mobilization and demobilization of the drill rig to and from the site. Mobilization/demobilization is not to exceed 250 miles round trip.

**Maximum cost is limited to \$2.35 per mile not to exceed a total cost of \$587.50 for a direct push technology rig. Maximum cost is limited to \$3.00 per mile not to exceed a total cost of \$750.00 for an auger rig. Maximum cost is limited to \$4.25 per mile not to exceed a total cost of \$1,062.50 for an air rotary rig.**

#### 3.3.c Cost for supervision of field work

This SOW will include oversight of field activities as well as office support and coordination. This SOW includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (*T.C.A. §62-36-101 et seq.*), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (*T.C.A. §62-2-101 et seq.*) with appropriate geologic experience, and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, equipment and supplies. Included in the SOW, the consultant is required to complete all boring logs, well construction records, and collect all necessary soil samples including samples for soil disposal. Supervisory time should not exceed drilling time.

**Maximum allowable cost per day is \$972.50.**

#### 3.3.d Cost for drilling

This SOW will include support vehicles, steam cleaner, grout plant, trailers, and crew. All monitoring wells shall be installed by a licensed well driller. Along with the invoice, the consultant must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller. All wells are required to be properly developed prior to sampling. This includes surge blocking where needed.



### **3.3.e Cost for well development**

This SOW will include all necessary personnel, labor, equipment and supplies to properly develop wells in accordance with the EAG twenty-four (24) hours after installation.

**Maximum cost per day is \$1,136.00.**

### **3.3.f Cost for disposal of petroleum contaminated soil in drums**

This SOW will include all necessary personnel, labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

### 3.0 RELEASE INVESTIGATION PROCESS

#### Task 3.4 Sampling

##### 3.4.a Cost for ground water sampling

This SOW includes all personnel time to purge and sample wells of any depth or diameter. This SOW includes static water level measurements and purge volume calculations. This SOW includes all ground water sampling for primary and secondary Drinking Water Standards as required in the EAG. This SOW includes sampling of purge water for disposal. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing). Includes cost of drum.

**Maximum cost is \$273.50 for one (1) well and \$120.00 per well for each additional well sampled.**

##### 3.4.b Cost for water supply well sampling

This SOW includes all personnel and sampling supplies to purge and sample a water supply well (i.e. indoor or outdoor spigot). This SOW includes all necessary equipment, personnel and sampling supplies to perform well purging (by letting spigot run for an adequate time) followed by sampling. This SOW includes sampling of purge water for disposal. This SOW includes the time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$75.00 for one (1) well and \$55.00 for each additional well sampled.**

##### 3.4.c Cost for surface water sampling

This SOW includes sampling of various types of surface waters (i.e. includes ponds, streams, creeks, etc.) to verify contamination. This SOW includes all necessary equipment, personnel and sampling supplies to perform sampling. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$75.00 for one (1) sample point and \$55.00 for each additional sample point.**

##### 3.4.d Cost for soil sampling (not associated with drilling activities)

This SOW includes various types of soil sampling not associated with drilling activities, closure activities, stockpile sampling or overexcavation sampling. (i.e. includes surface sampling, etc.) to verify contamination. This SOW includes all necessary equipment, personnel, and sampling supplies to perform sampling. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$180.00 for one (1) sample point by hand augering and \$55.00 for each additional sample point.**

#### **3.4.e Cost for laboratory services**

This SOW includes laboratory costs associated with all sampling of soil and/or water. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**

#### **3.4.f Cost for disposal of free product and/or ground water contaminated with petroleum product**

This SOW consists of disposal of free product and/or ground water contaminated with petroleum product removed from a monitoring well. Ground water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only.

**Maximum cost is \$90.00 per drum.**

#### **3.4.g Cost for collection of thirty (30) day static ground water levels**

This SOW includes all personnel and equipment to properly collect thirty (30) day static water level measurements in accordance with the current Environmental Assessment Guidelines as required to develop potentiometric maps in the Initial Site Characterization Report.

**Maximum cost is \$190.00.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.5 Receptor and Water Use Survey**

##### **3.5.a Cost for receptor survey**

This SOW includes preparation of a receptor survey in accordance with the EAG. This SOW includes all fieldwork, telephone contacts and records search. This SOW includes the completion of the Water Use Survey Sheets. **This task is not repeatable unless requested/approved by the Division. Maximum cost is \$330.00.**

##### **3.5.b Cost for water use and Karst survey**

This SOW includes preparation of a water use and Karst survey in accordance with the EAG. This SOW includes all fieldwork, telephone contacts and record searches. This SOW includes the completion of the Water Use Survey Sheets. **This task is not repeatable unless requested/approved by the Division. Maximum cost is \$890.00.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.6 Site Survey**

##### **3.6.a Cost for site survey by a licensed professional surveyor**

This SOW will include all personnel time to coordinate and schedule field activities associated with the survey event, collect, and record all data required to complete an acceptable monitoring well location map. This SOW shall include surveying the elevation of the established and documented point on the top of each well casing correlated with a mean sea level datum.

**Maximum cost not to exceed \$745.00 for the initial four (4) wells. Maximum cost is \$145.00 for each additional well.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.7 Vapor Monitoring**

##### **3.7.a Cost for vapor monitoring**

This SOW includes monitoring of various types of above ground structures and subsurface structures (i.e. includes buildings, basements, crawl spaces, utility vaults, etc.) for petroleum vapors. This SOW includes all necessary equipment and personnel to coordinate and conduct this task. This SOW should be performed in conjunction with any monitoring or sampling task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$215.00 per day.**

### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.8 Soil Gas Survey**

##### **Task 3.8.a Soil Gas Survey Using Direct Push Technology**

###### **3.8.a.1 Cost for scheduling soil gas survey event**

This SOW will include all necessary contracting and scheduling to perform all phases of the soil gas survey (i.e. soil borings and various other drilling tasks as needed). This SOW will include the scheduling of field activities associated with the soil gas survey event. This SOW will include locating all underground utilities.

**Maximum allowable cost is \$285.00.**

###### **3.8.a.2 Cost for mobilization/demobilization of direct push technology**

This SOW will include mobilization and demobilization of the drill rig to and from the site. Mobilization/demobilization is not to exceed 250 miles round trip.

**Maximum cost is limited to \$2.35 per mile not to exceed a total cost of \$587.50.**

###### **3.8.a.3 Cost for supervision of fieldwork using a direct push technology (4 or less samples)**

This SOW will include oversight of field activities as well as office support and coordination. This SOW will include all personnel and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the SOW the CAC is required to complete all field forms and collect all necessary samples. Supervisory time should not exceed drilling time.

**Maximum allowable cost per half day is \$1,356.00 (5 hours).**

###### **3.8.a.4 Cost for supervision of fieldwork using a direct push technology (5 or more samples)**

This SOW will include oversight of field activities as well as office support and coordination. This SOW will include all personnel and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the SOW, the CAC is required to complete all field forms and collect all necessary samples. Supervisory time should not exceed drilling time.

**Maximum allowable cost per full day is \$2,392.00 (10 hours).**

###### **3.8.a.5 Cost for drilling using direct push technology (4 hours)**

This SOW will include support vehicles, steam cleaner, trailers, and a two (2) person crew. Along with the invoice, the CAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is

recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller.

**Maximum allowable cost per half day is \$1,343.00 (4 hours).**

#### **3.8.a.6 Cost for drilling using direct push technology (8 hours)**

This SOW will include support vehicles, steam cleaner, trailers, and a two (2) person crew. Along with the invoice, the CAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller.

**Maximum allowable cost per full day is \$1,831.00 (8 hours).**

#### **3.8.a.7 Cost for laboratory services**

SOW includes laboratory costs associated with all air or soil gas sampling. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**



### **3.0 RELEASE INVESTIGATION PROCESS**

#### **Task 3.8 Soil Gas Survey**

##### **Task 3.8.b Soil Gas Survey Using Hammer Drill or Slide Hammer**

###### **3.8.b.1 Cost for scheduling soil gas survey event**

This SOW will include all necessary contracting and scheduling to perform all phases of the soil gas survey (i.e. soil borings and various other drilling tasks as needed). This SOW will include the scheduling of field activities associated with the soil gas survey event. This SOW will include locating all underground utilities.

**Maximum allowable cost is \$285.00.**

###### **3.8.b.2 Cost for fieldwork using a hammer drill or slide hammer (4 hours)**

This SOW will include oversight of field activities as well as office and field support and coordination. This SOW will include all personnel and the necessary equipment to supervise and conduct field activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the SOW, the consultant is required to complete all field forms and collect all necessary samples. **Maximum allowable cost per half day is \$1,932.00 (4 hours) plus shipping.**

###### **3.8.b.3 Cost for fieldwork using a hammer drill or slide hammer (8 hours)**

This SOW will include oversight of field activities as well as office and field support and coordination. This SOW will include all personnel and the necessary equipment to supervise and conduct field activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the SOW, the consultant is required to complete all field forms and collect all necessary samples. **Maximum allowable cost per full day is \$3,226.00 (8 hours) plus shipping.**

#### **3.8.b.4 Cost for laboratory services**

SOW includes laboratory costs associated with all air or soil gas sampling. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task. **Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**

## **4.0 RISK MANAGEMENT AND CORRECTIVE ACTION PROCESS**

### **Task 4.1 Risk Reduction**

#### **4.1.a Cost for risk reduction implementation**

This SOW will include the cost of the bid, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **4.1.b Cost for disconnection of private water supply well**

This SOW will include all necessary personnel and labor, equipment and materials to properly disconnect a private water supply well. Required activities include, but are not limited to, termination and disconnection of the power supply and disconnection and capping of any associated piping from the well to the building.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **4.1.c Cost for supervision of private water supply well abandonment**

This SOW includes all necessary personnel time to properly abandon a private water supply well in accordance with the Water Well Licensing Regulations and Well Construction Standards (rule 1200-4-9-.16). This SOW includes field activities and supervision, project scheduling and oversight.

**Maximum cost is \$600.00 per event.**

#### **4.1.d Cost for private water supply well abandonment**

This SOW includes the proper abandonment of a private water supply well performed by a licensed well driller in accordance with the Water Well Licensing Regulations and Well Construction Standards (rule 1200-4-9-.16). All private water supply wells shall be installed and abandoned by a licensed well driller. Along with the invoice, the consultant must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of well abandonment will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller.

**Maximum cost is not to exceed \$11.00 per foot.**

## **4.0 RISK MANAGEMENT AND CORRECTIVE ACTION PROCESS**

### **Task 4.2 Institutional Controls**

#### **4.2.a Cost for institutional control implementation**

This SOW will include the cost of the bid, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

## **4.0 RISK MANAGEMENT AND CORRECTIVE ACTION PROCESS**

### **Task 4.3 Engineering Controls**

#### **4.3.a Cost for engineering control implementation**

This SOW will include the cost of the bid, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

## **4.0 RISK MANAGEMENT AND CORRECTIVE ACTION PROCESS**

### **Task 4.4 Corrective Action**

#### **Task 4.4.a Corrective Action System Installation**

##### **4.4.a.1 Cost for public notice advertisement**

This SOW includes all personnel time and charges associated with placing public notice of impending corrective action in the newspaper, the state register, sending certified letters to property owners, and/or personal contacts.

**Personnel time is limited to one (1) hour. Maximum cost is limited to the actual amount of advertisement or postage cost plus personnel time.**

##### **4.4.a.2 Cost for permit and/or utility service**

This SOW includes all personnel time necessary to secure permits and/or utility connections with federal, state, and/or local government agency requirements.

**Maximum cost is \$160.00.**

##### **4.4.a.3 Cost for oversight of corrective action system delivery**

This SOW includes all personnel time to coordinate, schedule and oversee delivery of the corrective action system. Cost includes crane rental with operator or forklift for offloading.

**Maximum cost is \$1,067.00.**

##### **4.4.a.4 Cost for soil excavation and soil source removal**

This SOW will include all personnel, equipment and supplies to complete soil excavation and source removal in accordance with an approved Corrective Action Plan. All costs shall be proposed and will be reimbursed in accordance with task 1.1.a.–e.

**Maximum cost is equal to the cost of the proposal and any modifications made by the Division, and change orders if applicable, submitted to the Division in the CAP and approved in writing.**

##### **4.4.a.5 Cost for recovery well trench installation**

This SOW will include all personnel, equipment and supplies to complete recovery well and contingent piping and trenching in accordance with an approved Corrective Action Plan. This includes any personnel time (not travel time or mileage) required to purchase necessary supplies.

**Maximum cost for recovery well trench installation, including piping and fittings, is \$65.00 - \$78.00/ linear foot depending on the number of lines in the recovery trench.**

##### **4.4.a.6 Cost for recovery wellhead manifold, extraction vault and tubing installation**

This SOW will include all personnel, equipment and supplies to construct and install recovery well heads and vaults for each recovery well in accordance with an approved Corrective Action Plan.

**Maximum cost is \$1,380/wellhead.**

#### **4.4.a.7 Cost for corrective action system inlet piping manifold**

This SOW will include all personnel, equipment and supplies to construct and install the corrective action system inlet piping manifold in accordance with an approved Corrective Action Plan. This includes any personnel time (not travel time or mileage) required to purchase necessary supplies.

**Maximum cost for one (1) recovery well inlet is \$330.00. Maximum cost for each additional recovery well inlet is \$117.00.**

#### **4.4.a.8 Cost for concrete pad and bollard installation**

This SOW includes all personnel, equipment and supplies to properly construct and pour a ten (10) foot wide by fourteen (14) foot long by four (4) inch thick concrete pad for the corrective action system to be placed on in accordance with the current Corrective Action Plan Guidelines CAS Figure Packages. It also includes personnel, equipment and supplies to construct and install the bollards for the corrective action system (up to 12 bollards maximum). This should be performed in conjunction with concrete pad installation or any corrective action installation task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$1,820.00 per pad installation.**

**Maximum cost is \$2,400.00 for bollards installation**

#### **4.4.a.9 Cost for mobilization/demobilization of heavy equipment**

This SOW will include mobilization and demobilization of any heavy equipment to and from the site for corrective action system offloading from the delivery truck.

**Maximum cost is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50.**

#### **4.4.a.10 Cost for corrective action system discharge trench installation**

This SOW will include all personnel, equipment and supplies to complete CAS discharge piping and trenching in accordance with an approved Corrective Action Plan.

**Maximum cost for discharge trench installation, including piping and fittings, is \$25.00/linear foot.**

#### **4.4.a.11 Cost for wet test of system**

This SOW will include personnel, equipment, and supplies to ensure that 500 gallons of potable water are at the site so that the corrective action system may be properly wet tested after delivery and prior to start-up. These activities include, but are not limited to pre-diagnostic testing, electrical and telephone line connections, hydrating the carbon filters, and CAS troubleshooting. This is a one-time cost unless otherwise approved by the Division and includes completing the manufacturer pre-startup checklist.

**Maximum cost is \$1,200.00 per wet test.**

#### **4.4.a.12 Cost for electrical service installation**

This SOW will include the cost of the bid by a licensed electrician, and change order(s) if applicable, approved in writing by the Division.

**Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**

#### **4.4.a.13 Cost for disposal of CAS site debris**

This SOW will include the cost for the proper disposal of non-contaminated materials that must be removed from the site during installation of the CAS and associated trenching. This includes asphalt, concrete/rebar, scrap trench piping but does not include disposal of soils or gravel. This task should also be used for disposal costs associated with 4.4.d.9.

**Maximum cost is equal to the itemized costs in other sections of RGD-002 (i.e. landfill costs, hauling, etc.) or the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.**



## 4.0 CORRECTIVE ACTION PROCESS

### Task 4.4 Corrective Action

#### Task 4.4.b Corrective Action System Operation and Maintenance

##### 4.4.b.1 Cost for routine operation and maintenance

This SOW will include routine, scheduled site visits. This is limited to one (1) visit per month. If additional visits are required, a request in advance must be made and approved by the case manager. Onsite personnel shall perform routine and scheduled repairs during the site visit. Onsite personnel shall inspect and document system performance on Division provided field forms (CASFL) including, but is not limited to, the tabulation of gauge and meter readings, inspecting for and repair of leaks (including removing any standing water/product/oil), excessive equipment heat and noise, and equipment wear. Other routine activities may include but are not necessarily limited to: adjusting the system for summer or winter operation, checking extraction wells, depth to water and/or adjusting stinger well depths to maximize free product/contaminant recovery; checking all wells (extraction and monitoring) not connected to or in use by the CAS that have contained free product in the past and removing any free product; checking down-hole pumps or air assist lines, if applicable; checking/changing filters, hoses, oil; cleaning the stripper and oil/water separator inside utilizing Rydlyme to remove sludge/fouling/mineral build-up; inspecting and cleaning the stripper aeration tubes/lid seal (gasket roll)/packing media and replacing if necessary and cleaning the stripper exterior; cleaning the AWS inside to remove sludge/fouling/mineral build-up and cleaning the exterior; cleaning the exterior of the heat exchanger; checking all transfer pumps for signs of mineral deposits and cleaning if needed; checking and cleaning the conductivity level probe rods in the AWS and sump; checking the oil sight gauge for water or cloudiness, draining if necessary, and throttling the oil to raise the temperature; cleaning the bag filter housings inside and out to remove sludge/fouling/mineral build-up; backwashing GAC vessels to remove sludge/fouling/mineral build-up and cleaning the exterior; repairing/replacing gauges; and applying lubricants as needed. All components and equipment shall be operated, maintained and cleaned in accordance with the manufacturers' O&M manual and Division requirements, which include quarterly O&M requirements, when applicable. The maximum cost includes all personnel and equipment to service and maintain the system equipment. Price does not include major repairs or extensive troubleshooting which may be covered by the manufacturer. Office coordination and scheduling time is included in the daily rate. Routine operation and maintenance shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate field office.

**Maximum cost is \$1,257.50 per day. All routine O&M conducted on a state owned system shall be performed by a CAS Specialist or a Senior Technician if the system is responsible party owned.**

#### **4.4.b.2 Cost for non-scheduled maintenance**

This SOW will include a nonscheduled site visit as a result of a system shutdown or failure. This SOW includes all personnel and equipment to perform the tasks troubleshooting, and repairing of the system and completion of Division provided field forms (CASRL and/or CASDR). It excludes costs for supplies, components, and equipment replacement. Office coordination and scheduling time is included in the daily price rate and therefore, only the actual time spent onsite is to be reimbursed. This task will only be reimbursed if the field office is notified no later than one (1) working day after any non-routine field activity after the system shutdown or failure.

**Maximum cost is \$905.00 per day not including supplies, components, and equipment replacement. All non-scheduled O&M conducted on a state owned system shall be performed by a CAS Specialist or a Senior Technician if the system is responsible party owned.**

#### **4.4.b.3 Cost for evaluation of performance meeting**

This SOW will include the meeting held between Division personnel, the CAC and/or the responsible party, as deemed necessary by the Division to evaluate the performance of the corrective action system. Topics for discussion shall include but not be limited to COC concentration reduction, plume dynamics, system operational performance, system repair history, and recommendations for system and/or CAP modifications to increase system performance. This may include any time for an on-site meeting. Maximum cost includes the time required for oversight by the Project Manager and a maximum of two (2) geologists/engineers to schedule, plan, and attend the meeting.

**Maximum cost is \$1,375.00 per meeting.**

#### **4.4.b.4 Cost for utilities and payment of bills**

This SOW includes all personnel time necessary to process and pay bills associated with utility connection and corrective action system usage including electric, natural gas, telephone, sanitary sewer (POTW), and water.

**Maximum cost is \$60.00 per month.**

#### **4.4.b.5 Cost for charges for utility service**

This SOW includes all costs for utility service necessary to operate an approved corrective action system including electric, natural gas, telephone, sanitary sewer (POTW), and water usage.

**Maximum cost is limited to the actual amount of the utility bill.**

#### **4.4.b.6 Cost for additional technician during operation and/or maintenance**

This SOW will include all personnel time necessary for an additional technician to assist with operation and/or maintenance as described in tasks 4.4.b.1 and 4.4.b.2. **This task must be requested in advance and approved by the case manager.** Operation and/or maintenance shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate field office. This is limited to one (1) visit per month. If additional visits are

required, then they must be requested in advance and approved by the case manager.

**Maximum cost is \$450.00 per day.**

#### **4.4.b.7 Cost for review of telemetry report**

This SOW includes all personnel time necessary to review and interpret all telemetry alarms, data and reports associated with the corrective action system.

**Maximum cost is \$190.00 per month.**

#### **4.4.b.8 Cost for annual routine operation and maintenance**

This SOW will include a routine scheduled site visit for annual operation and maintenance as outlined in the manufacturers' operating manual. This task is limited to one (1) workday per twelve (12) month period and shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate field office. The maximum cost includes all personnel and equipment to service and maintain the system equipment and completion of all tasks and paperwork required by the Division's CASFL. Price does not include major repairs or extensive troubleshooting which may be covered by the manufacturer. Office coordination and scheduling time is included in the daily rate. All field work shall be completed by a senior technician and technician.

**Maximum cost is \$1,522.50 per day plus the cost of the annual O&M kit from the system manufacturer (\$2,440.00 includes 15% mark-up) plus actual cost of shipping. All annual routine O&M conducted on a state owned system shall be performed by a CAS Specialist.**

## CORRECTIVE ACTION PROCESS

### Task 4.4 Corrective Action

#### Task 4.4.c Corrective Action Sampling

##### **4.4.c.1 Cost for ground water sampling**

This SOW will include all personnel time and sampling supplies to purge and sample wells of any depth or diameter. This SOW includes static water level measurements, purge volume calculations, sampling of purge water for disposal, personnel time to coordinate this task and to manage the laboratory services (i.e. chain of custody, sample preparation, sample QA/QC, and invoice managing). The schedule for ground water monitoring shall be performed in accordance with the schedule in the approved CAP. Wells to be sampled shall be in accordance with the approved CAP. Includes cost of drum.

**Maximum cost is \$273.50 for one (1) well and \$120.00 per well for each additional well sampled.**

##### **4.4.c.2 Cost for water supply well sampling**

This SOW includes all personnel and sampling supplies to purge and sample a water supply well (i.e. indoor or outdoor spigot). This SOW includes all necessary equipment, personnel and sampling supplies to perform well purging (by letting spigot run for an adequate time) followed by sampling. This SOW includes sampling of purge water for disposal. This SOW includes the time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$75.00 for one (1) well and \$55.00 for each additional well sampled.**

##### **4.4.c.3 Cost for surface water sampling**

This SOW includes sampling of various types of surface waters (i.e. includes ponds, streams, creeks, etc.) to verify contamination. This SOW includes all necessary equipment, personnel and sampling supplies to perform sampling. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$75.00 for one (1) sample point and \$55.00 for each additional sample point.**

##### **4.4.c.4 Cost for soil sampling (not associated with drilling activities)**

This SOW includes various types of soil sampling not associated with drilling activities, closure activities, stockpile sampling or overexcavation sampling. (i.e. includes surface sampling, etc.) to verify contamination. This SOW includes all necessary equipment, personnel, and sampling supplies to perform sampling. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$180.00 for one (1) sample point by hand augering and \$55.00 for each additional sample point.**

#### **4.4.c.5 Cost for laboratory services**

This SOW will include any soil laboratory analysis performed for corrective action monitoring. Consultant must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant uses their own lab. Transportation costs to the laboratory should be included in this task.

**Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.**

#### **4.4.c.6 Cost for monitored natural attenuation**

This SOW includes the collection of geochemical and/or biological samples and evaluation of parameters that support intrinsic remediation such as dissolved oxygen, nitrate, sulfate, total dissolved iron, methane, and total organic carbon. Sampling and laboratory analysis for the appropriate COCs shall also be a part of this task. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

**Maximum cost is \$235.00 for one (1) well (all parameters) or \$120.00 per well if more than one (1) well is sampled.**

#### **4.4.c.7 Cost for land and receptor monitoring**

This SOW shall consist of monitoring for changes in land, surface, and/or ground water use surrounding the site. Compare receptors used during preparation of the approved Exposure Assessment to any changes observed on site or surrounding the site. This SOW should be performed in conjunction with any monitoring or sampling task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$160.00.**

#### **4.4.c.8 Cost for Publicly Owned Treatment Works (POTW) sampling**

This SOW will include all personnel and labor to collect corrective action system water samples for laboratory analysis to meet/establish POTW discharge permit requirements. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The frequency and sampling requirements for discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per influent and one (1) sample per discharge. Influent samples should be collected for the COCs approved in the SSSR. Effluent samples should be collected for the COCs approved in the permit. This SOW should be performed in conjunction with any monitoring or sampling task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$75.00 for the first sample and \$55.00 for each additional sample collected.**

#### **4.4.c.9 Cost for National Pollutant Discharge Elimination System (NPDES) sampling**

This SOW includes all personnel time and labor costs to collect corrective action system water samples for laboratory analysis to meet/establish NPDES discharge permit requirements. This SOW includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The frequency and sampling requirements for discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per influent and one (1) sample per discharge. Influent samples should be collected for the COCs approved in the SSSR. Effluent samples should be collected for the COCs approved in the permit. This SOW should be performed in conjunction with any monitoring or sampling task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division. This task shall also be used for automatic sampling for NPDES permits requirements (other than Task 4.4.c.10 for initial set-up and final retrieval).

**Maximum cost is \$75.00 for the first sample and \$55.00 for each additional sample collected.**

#### **4.4.c.10 Cost for effluent toxicity sampling (NPDES)**

This SOW includes all personnel time and labor costs to conduct whole effluent toxicity sampling over a five (5) day period. Personnel are allotted a maximum of one (1) hour onsite time per day on days one (1), three (3) and five (5) to collect grab samples from the CAS effluent. **Also includes personnel time to schedule & coordinate task.**

**Maximum cost is \$305.00.**

#### **4.4.c.11 Cost for corrective action system air monitoring**

This SOW includes all personnel time and labor to monitor effluent air concentrations on site for compliance with required state or local issued permits. The frequency requirements for discharge monitoring shall be performed according to the approved federal, state, and/or local government agency requirements. This SOW should be performed in conjunction with any monitoring task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$205.00.**

#### **4.4.c.12 Cost for disposal of drums filled with free product or ground water contaminated with petroleum product**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose of drums filled with free product and/or ground water contaminated with petroleum product removed from a monitoring well. Ground water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only at a permitted disposal facility.

**Maximum cost is \$90.00 per drum.**

#### **4.4.c.13 Cost for disposal of drums filled with petroleum contaminated soil**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose of drums filled with petroleum contaminated soil. Soil contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only at a permitted disposal facility.

**Maximum cost is \$90.00 per drum.**

#### **4.4.c.14 Cost for vacuum monitoring of CAS**

This SOW includes all personnel time and labor to obtain and document vacuum measurements during each monitoring event as required by the CASFL. All vacuum measurements shall be documented in the CASFL and submitted with the applicable report. This SOW should be performed in conjunction with any monitoring task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

**Maximum cost is \$120.00.**

## **4.0 CORRECTIVE ACTION PROCESS**

### **Task 4.4 Corrective Action**

#### **Task 4.4.d Corrective Action System Closure**

##### **4.4.d.1 Cost for deactivation of corrective action system**

This SOW includes all personnel and equipment to properly deactivate corrective action system in accordance with the current Division Corrective Action System Deactivation Checklist and local, state and federal laws and guidelines. Office coordination and scheduling time is included in the daily rate.

**Maximum cost is \$2,651.00.**

##### **4.4.d.2 Cost for disposal of drums filled with petroleum contaminated waste**

This SOW will include all necessary personnel and labor, equipment and supplies to properly dispose of drums filled with free product and/or ground water contaminated with petroleum product removed from a monitoring well. Ground water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only at a permitted disposal facility.

**Maximum cost is \$90.00 per drum.**

##### **4.4.d.3 Cost for permit and/or utility connection termination**

This SOW includes all personnel time necessary to terminate permits and/or utility connections with federal, state, and/or local government agency requirements.

**Maximum cost is \$160.00 for oversight. Maximum cost for subcontracted electrician (if required by utility district) not to exceed the cost of the bid submitted to the Division and approved in writing.**

##### **4.4.d.4 Cost for preparation of the corrective action system for removal from the site for refurbishment**

This SOW includes all personnel and equipment to properly sever tie downs, piping and electrical wiring from the corrective action system, and to remove unusable power poles, exposed piping, fencing and enclosures in accordance with the current local, state and federal laws and guidelines. This cost also includes oversight during the loading of the corrective action system and associated equipment for transport to a Division approved system vendor for refurbishing.

**Maximum cost not to exceed \$330.00.**

##### **4.4.d.5 Cost for decommissioning a corrective action system**

This SOW includes all personnel and equipment to properly decommission the corrective action system including dismantling any associated ancillary equipment, removing unusable power poles, exposed piping, fencing and enclosures in accordance with the current Division Corrective Action System Decommission Checklist and local, state and federal laws and guidelines. This



includes properly preparing the system for removal from the site. Office coordination and scheduling time is included in the daily rate. This SOW does not include hauling or disposal of non-state owned equipment and debris to a disposal or recycling facility. All state owned equipment pick-up will be scheduled by the Division. **Maximum cost is not to exceed \$2,662.00.**

#### **4.4.d.6 Cost for mobilization and demobilization of heavy equipment**

This SOW will include mobilization and demobilization of the backhoe and/or skid-steer loader and concrete breaker to and from the site for decommissioning or following removal of corrective action system that is being refurbished.

**Maximum cost is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50.**

#### **4.4.d.7 Cost for oversight of the corrective action system pick-up for refurbishment by the state contractor**

This SOW includes all personnel for oversight by the state contractor of pick-up and loading of the corrective action system for transport for refurbishment. This cost also includes inspection to determine that all tie downs have been properly severed and piping and wiring have been properly disconnected and capped from the corrective action system. **This task will only be reimbursed if requested/approved by the Division.**

**Maximum cost not to exceed \$330.00.**

#### **4.4.d.8 Cost for reactivation of the corrective action system and oversight of performance (with Division approval)**

This SOW includes all personnel and equipment to properly reactivate the corrective action system after Division approval and in accordance with the current Division Corrective Action System Reactivation Checklist. This task includes maximum on-site allowable personnel time up to 10 hours to make any necessary system adjustments. Office coordination and scheduling time is included in this task.

**Maximum cost is \$1,671.00.**

#### **4.4.d.9 Cost for removal of the concrete pad for a state owned corrective action system sent for refurbishment (if required by property owner)**

This task is to be conducted at the request of the property owner (written documentation required) and in conjunction with Tasks 4.4.d.7 or 5.2.c (travel time, mileage, lodging and per diem costs will not be reimbursed for this task). This SOW includes all personnel and equipment to break up and remove the concrete pad after the corrective action system has been removed from the site for refurbishment. Office coordination and scheduling time is included. This SOW includes hauling debris to a disposal or recycling facility. This cost does not include the disposal costs. Disposal costs should be requested in task 4.4.a.13.

**Maximum cost not to exceed \$1,155.00.**

**NOTE: The Division will not reimburse for the hauling and/or disposal of a non-state owned CAS.**

## 5.0 FINAL SITE CLOSURE PROCESS

### **Task 5.1 Well Abandonment**

#### **5.1.a Cost for supervision of well abandonment**

This SOW includes all necessary personnel time to properly abandon wells in accordance with the current EAG, including preparing the Division's monitoring well abandonment checklist for the drillers. This SOW includes field activities and supervision, project scheduling and oversight.

**Maximum cost is \$380.00 per event.**

#### **5.1.b Cost for well abandonment**

This SOW includes the proper abandonment in accordance with the current EAG and performed by a licensed well driller, including completion of the Division's monitoring well abandonment checklist and taking pictures of final well abandonment. All monitoring wells shall be abandoned by a licensed well driller. Along with the invoice, the consultant must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of well abandonment will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultant uses their own driller.

**Maximum cost is not to exceed \$11.00 per foot. Maximum cost for manhole covers and concrete pad removal is \$125.00 per well. Maximum cost for recovery well vault removal is \$300.00 per vault.**

#### **5.1.c Cost for mobilization/demobilization of support truck**

This SOW will include mobilization and demobilization of a support truck (equipped to properly abandon monitoring wells) to and from the site. Mobilization/demobilization is not to exceed 250 miles round trip.

**Maximum cost is limited to \$0.75 per mile not to exceed a total cost of \$187.50.**

**NOTE:** If a drill rig is thought to be required to properly abandon the monitoring wells, then **prior written approval** must be obtained from the Division. Otherwise, the cost will not be considered to be reasonable and will not be reimbursed.

## **5.0 FINAL SITE CLOSURE PROCESS**

### **Task 5.2 Site Restoration**

#### **5.2.a Cost for scheduling for site restoration activities**

This SOW will include all necessary contracting and scheduling for site restoration activities. Work is not to exceed two (2) hours. Maximum cost is \$95.00 per hour. **Maximum cost is \$190.00 per event.**

#### **5.2.b Cost for supervision of site restoration**

This SOW will include oversight of field activities as well as office support and coordination. Work not to exceed two (2) hours. Maximum cost is \$80.00 per hour. **Maximum cost is \$160.00 per event.**

#### **5.2.c Site restoration**

This SOW will include all personnel and labor, equipment and supplies to properly restore the site to a condition comparable to the original condition utilizing seed, mulch, and straw by hand. This SOW does not include tank(s), line(s), asphalt and/or concrete replacement.  
**Maximum cost is \$395.00.**

## 6.0 SUBMITTED DOCUMENTS MAXIMUM COST TABLE

The following application, proposal, report, and submittal costs are limited to these maximum reimbursable amounts.

| <b>Task Code</b> | <b>Submitted Documents (Applications/Proposals/Reports/Submittals)</b> |   | <b>Maximum Cost</b> |
|------------------|--|---|---------------------|
| <b>6.1</b>       | <b>UST Closure</b>   |   |                     |
|                  | 6.1.a  | TRBCA Closure Report  | \$605.00            |
|                  | 6.1.b  | Soil Stockpile Sampling Report (TGD-005)  | \$345.00            |
|                  | 6.1.c  | Overexcavation Report   | \$930.00            |
|                  | 6.1.d  | Application to Treat Petroleum Contaminated Soil (TGD-009)  | \$185.00            |
|                  | 6.1.e  | Soil Treatment and Disposal Report  | \$335.00            |
| <b>6.2</b>       | <b>Hazard Notification Report</b>                                      |   | \$80.00             |
| <b>6.3</b>       | <b>Site Check Report (TGD-012)</b>                                     |   | \$2,690.00          |
| <b>6.4</b>       | <b>Initial Response and Hazard Management Report (IRHMR)</b>           |   | \$1,715.00          |
|                  | 6.4.a  | Hazard Management Report  | \$370.00            |
|                  | 6.4.b  | Health and Safety Plan (if not included with IRHMR)   | \$320.00            |
| <b>6.5</b>       | <b>Impacted Drinking Water Management (TGD-019)</b>                    |   |                     |
|                  | 6.5.a  | Impacted Drinking Water - Hazard Management Report (TGD-019)  | \$415.00            |
|                  | 6.5.b  | Impacted Drinking Water Supply Temporary Response – Proposal (if costs anticipated to exceed \$2500.00) | \$365.00            |
|                  | 6.5.c  | Impacted Drinking Water Supply Permanent Response – Proposal  | \$735.00            |
| <b>6.6</b>       | <b>Petroleum Vapor Impact Management (TGD-020)</b>                     |   |                     |
|                  | 6.6.a  | Petroleum Vapor Impact - Hazard Management Report (TGD-020)   | \$415.00            |
|                  | 6.6.b  | Petroleum Vapor Impact Temporary Response – Proposal (if costs anticipated to exceed \$2500.00)         | \$365.00            |
|                  | 6.6.c  | Petroleum Vapor Impact Permanent Response – Proposal  | \$735.00            |
| <b>6.7</b>       | <b>Mobile Enhanced Multi-phase Extraction (MEME) (TGD-016)</b>         |   |                     |
|                  | 6.7.a  | Application to Perform MEME   | \$370.00            |
|                  | 6.7.b  | 8-hour MEME Report  | \$370.00            |
|                  | 6.7.c  | 24-hour MEME Report   | \$490.00            |

| <b>Task Code</b> | <b>Submitted Documents (Applications/Proposals/Reports/Submittals)</b> |   | <b>Maximum Cost</b> |
|------------------|--|---|---------------------|
| <b>6.8</b>       | <b>Free Product Removal</b>  |   |                     |
|                  | 6.8.a  | Free Product - Hazard Management Report (TGD-004)                                 | \$495.00            |
|                  | 6.8.b  | Free Product Investigation Proposal   | \$760.00            |
|                  | 6.8.c  | Free Product Investigation Report   | \$1,715.00          |
|                  | 6.8.d  | Free Product Removal Plan   | \$5,285.00          |
| <b>6.9</b>       | <b>Initial Site Characterization Report</b>                            |   | \$4,905.00          |
|                  | 6.9.a  | Additional Monitoring Well Installation Proposal                                  | \$160.00            |
|                  | 6.9.b  | Additional Monitoring Well Installation Report                                    | \$370.00            |
| <b>6.10</b>      | <b>Exposure Assessment Report (TGD-017)</b>                            |   | \$1,215.00          |
|                  | 6.10.a   | Additional Remediation and/or Risk Management Response Submittal                  | \$80.00             |
|                  | 6.10.b   | Additional Remediation and/or Risk Management Evaluation – with Division approval | \$735.00            |
|                  | 6.10.c   | Risk Analysis Report only   | \$305.00            |
| <b>6.11</b>      | <b>Soil Gas Survey (TGD-018)</b>                                       |   |                     |
|                  | 6.11.a   | Soil Gas Survey Application   | \$370.00            |
|                  | 6.11.b   | Soil Gas Survey Report  | \$630.00            |
| <b>6.12</b>      | <b>Source Removal (Overexcavation)</b>                                 |   |                     |
|                  | 6.12.a   | Source Removal Proposal   | \$240.00            |
|                  | 6.12.b   | Source Removal Report   | \$930.00            |
| <b>6.13</b>      | <b>Risk Reduction</b>  |   |                     |
|                  | 6.13.a   | Risk Reduction Proposal   | \$240.00            |
|                  | 6.13.b   | Risk Reduction Report   | \$630.00            |
| <b>6.14</b>      | <b>Institutional Controls</b>  |   |                     |
|                  | 6.14.a   | Institutional Control Proposal  | \$240.00            |
|                  | 6.14.b   | Institutional Control Report  | \$95.00             |
| <b>6.15</b>      | <b>Engineering Controls</b>  |   |                     |
|                  | 6.15.a   | Engineering Control Proposal  | \$240.00            |
|                  | 6.15.b   | Engineering Control Report  | \$225.00            |
| <b>6.17</b>      | <b>Corrective Action Plan (CAP)</b>                                    |   |                     |
|                  | 6.17.a   | CAP - Soil Contamination Only   | \$3,930.00          |
|                  | 6.17.b   | CAP with Ground Water Contamination   | \$5,285.00          |

| <b>Task Code</b> | <b>Submitted Documents (Applications/Proposals/Reports/Submittals)</b> |  | <b>Maximum Cost</b>                                |
|------------------|--|--|--|
| <b>6.18</b>      | <b>Monitoring Reports (TGD-007)</b>                                    |  |  |
|                  | 6.18.a   | Risk Monitoring Report (RMR)   | \$1,105.00   |
|                  | 6.18.b   | Closure Monitoring Report (CMR)                                      | \$1,105.00   |
|                  | 6.18.g   | Corrective Action Baseline Monitoring Report (CABMR)                 | \$1,720.00   |
|                  | 6.18.h   | Corrective Action Monitoring Report with as-built diagrams (CAMR-ab) | \$2,200.00   |
|                  | 6.18.i   | Corrective Action Monitoring Report (CAMR)                           | \$1,960.00   |
|                  | 6.18.j   | Corrective Action Closure Monitoring Report (CACMR)                  | \$1,220.00   |
| <b>6.19</b>      | <b>Permit Applications and Discharge Monitoring Reports</b>            |  |  |
|                  | 6.19.a   | NPDES Permit Application   | \$445.00   |
|                  | 6.19.b   | Discharge Monitoring Report (DMR)                                    | \$160.00   |
|                  | 6.19.c   | POTW Application   | \$445.00   |
|                  | 6.19.d   | POTW Report  | \$160.00   |
|                  | 6.19.f   | Air Exceedance Report  | \$160.00   |
|                  | 6.19.g   | Annual Air Emissions Report  | \$320.00   |
|                  | 6.19.h   | Monitoring Well Maintenance Fee                                      | \$110.00   |
|                  | 6.19.i   | Class V Underground Injection Well Application (TGD-003)             | \$445.00   |
|                  | 6.19.j   | Monitoring Well Permit – no markup                                   | \$150.00   |
|                  | 6.19.k   | Right-of-way Bond – no markup  | actual cost  |
| <b>6.20</b>      | <b>Miscellaneous Application/Proposals/Reports/Submittals</b>          |  |  |
|                  | 6.20.a   | Field Work Notification  | \$30.00  |
|                  | 6.20.b   | Boring Log Installation submittal                                    | \$80.00  |
|                  | 6.20.c   | Public Notice of Corrective Action                                   | \$80.00  |
|                  | 6.20.z   | Other report as required by the Division                             | actual cost as approved by case manager in writing |
| <b>6.21</b>      | <b>Corrective Action System Deactivation Report</b>                    |  | \$80.00  |
| <b>6.22</b>      | <b>Monitoring Well Abandonment Report</b>                              |  | \$80.00  |

## REFERENCE 1

| <b>Product Released</b>         | <b>Chemicals To Sample Drinking Water</b>  | <b>Chemicals To Sample Non-Drinking Water</b>   | <b>Chemicals To Sample Surface Drinking Water***</b>   | <b>Chemicals To Sample Surface Non-Drinking Water***</b>       |
|---------------------------------|--|---|--|--|
| Gasoline                        | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>Naphthalene                            | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>Naphthalene               | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes   | Benzene<br>Ethylbenzene<br>Toluene                             |
| Diesel*<br>Jet Fuel<br>Kerosene | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>PAHs                                   | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>Naphthalene               | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>Benzo(a)pyrene                                   | Benzene<br>Ethylbenzene<br>Toluene<br>Modified PAHs****        |
| Waste Oil*<br>Used Oil          | PAHs<br>Cadmium<br>Chromium, Total<br>Lead, Total<br>Silver<br>Zinc                                    | Naphthalene   | Benzo(a)pyrene<br>Cadmium<br>Chromium, Total<br>Lead, Total  | Modified PAHs****  |
| Aviation*<br>Fuel               | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>EDB*****<br>EDC<br>PAHs<br>Lead, Total | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>MtBE<br>Naphthalene<br>EDB<br>EDC | Benzene<br>Ethylbenzene<br>Toluene<br>Totals Xylenes<br>EDB*****<br>EDC<br>Benzo(a)pyrene<br>Lead, Total | Benzene<br>Ethylbenzene<br>Toluene<br>EDC<br>Modified PAHs**** |
| Unknown**                       | Aviation+Waste Oil   | Aviation+Waste Oil  | Aviation+Waste Oil   | Aviation+Waste Oil   |

\*EPH to be sampled only during tank closure and analyzed by TN Extractable Petroleum Hydrocarbons (EPH) Method; GRO no longer required

\*\*Tanks with unknown contents will be required to analyze all COCs

\*\*\*Chemicals to be sampled **only** at the surface water receptor

\*\*\*\*Modified PAHs – Reference 2 list minus Acenaphthylene, Benzo(g,h,i)perylene, Naphthalene, and Phenanthrene. Include these COCs in all ground water sample analysis if a surface water is a potential receptor. Do NOT add to soil analysis.

\*\*\*\*\*EDB ground water samples shall be analyzed by EPA method 8011

BTEX, MtBE, Naphthalene, EDB, and EDC shall be analyzed by EPA method 8260B

PAHs in water shall be analyzed by either EPA method 8270C SIM or EPA method 8310

(water samples shall be field filtered using a 0.45 micron filter); PAHs in soil no longer required

Metals shall be analyzed by EPA method 200.7 for water and EPA method 6010/3050 for soil (water samples shall be field filtered using a 0.45 micron filter)

## REFERENCE 2

|                         |
|-------------------------|
| Acenaphthene            |
| Acenaphthylene          |
| Anthracene              |
| Benzo(a)anthracene      |
| Benzo(a)pyrene          |
| Benzo(b)fluoranthene    |
| Benzo(g,h,i)perylene    |
| Benzo(k)fluoranthene    |
| Chrysene                |
| Dibenz (a,h)anthracene  |
| Fluoranthene            |
| Fluorene                |
| Indeno(1,2,3-c,d)pyrene |
| Naphthalene             |
| Phenanthrene            |
| Pyrene                  |



## **7.0 PER DIEM AND LODGING PROCESS**

### **Task 7.1 Per Diem**

#### **7.1.a Cost for per diem charges**

This SOW will include the cost of all per diem charges accrued performing site remediation tasks as requested by the Division. Date(s) and time(s) must not exceed time for being onsite plus travel. Meals will not be reimbursed without a corresponding lodging receipt. No mark-up allowed. **Maximum cost** shall be reimbursed in accordance with the state of Tennessee travel regulations at the time that work was performed. Current travel regulations can be found at: [www.tn.gov/finance/act/documents/policy8.pdf](http://www.tn.gov/finance/act/documents/policy8.pdf)

## 7.0 PER DIEM AND LODGING PROCESS

### Task 7.2 Lodging

#### 7.2.a Cost for lodging charges

This SOW will include the cost of all lodging charges accrued performing site remediation tasks as requested by the Division. Date(s) must not exceed time for being onsite. Hotel invoice must be submitted with reimbursement request. No mark-up allowed. **Maximum cost** shall be reimbursed in accordance with the state of Tennessee travel regulations at the time that work was performed. Current travel regulations can be found at:  
[www.tn.gov/finance/act/documents/policy8.pdf](http://www.tn.gov/finance/act/documents/policy8.pdf)

## **X. INSTRUCTIONS FOR COMPLETING REIMBURSEMENT APPLICATIONS IN THE COST DATABASE**

The Division of Underground Storage Tanks (Division) has a process for reimbursement involving electronic applications. This process consists of three (3) parts: cost task descriptions, cost task spreadsheets and a cost database. The cost task descriptions provide details of commonly performed tasks at contaminated UST sites (see Section IX). The cost spreadsheets provide the breakdown of routine maximum cost for performing each task. The cost database is a Microsoft Access® program and requires you to use version Access® 2007 or higher. Different versions of Access (32 vs. 64 bit) are available. If you upgrade or change computers, you may need a different version of the cost database. Please contact the Division if you begin encountering problems after a change.

Applications, appeals, questions, comments, etc. should be submitted to:  
**[ust.reimbursement@tn.gov](mailto:ust.reimbursement@tn.gov)**

### **A. UST COST DATABASE INSTRUCTIONS**

Before beginning any electronic invoice, it is a good idea to become familiar with the task description and associated cost spreadsheet to determine: 1) what job titles are allowed to be billed, 2) what type of equipment is reimbursable for each task and 3) whether the task is an office/field task or travel time to/from task. At first, it may not be obvious where certain tasks should be entered. It may be useful to scan through several sheets before beginning any data entry.

**Always** use the tab key to exit data boxes and always tab out to save information.

Once information has been entered into a field, it will automatically be saved when you exit that field.

### **B. TO BEGIN THE INVOICE**

The terms on the first page of the application database must be agreed to by clicking the box. Click on the “Start UST database” button to begin. On the next page, click on the map of the state of Tennessee in any location to open the database.

### **C. COST DATABASE MAIN PAGE**

Click on the “ENTER NEW FACILITY ID/INVOICE NUMBER” button to begin. A pop up box will appear for the entry of the seven-digit UST facility ID number not including dash. After entry of the UST facility ID number, click ok. Another pop up box will appear for entry of the invoice number. After entry of the invoice number, click ok. The program is set up with an automatic clock and calendar function. If you do not want to use this feature, then click on the “Pop-up and Other Options” button to disable it. Also in the “Pop-up and Other Options” button you may turn on/off the auto-complete function and also set the mileage, lodging and per diem rates for the database. Additionally, there are buttons to remove duplicate records from the tblGeneralInformation table and to remove a zero numbered task in the tblReimbursement table.

#### **D. INVOICE ENTRY PAGE**

**It is important that all information on this page be correct. The facility ID number will appear as a default on the next page. Enter the appropriate information in all fields. If any field is left blank, a pop up box will identify the field that needs to be completed. If the case number is not known, enter “Unk”. It is recommended that you contact the case manager to obtain this number. All work that is to be entered for this invoice must be within the time period entered in “Work Start Date” to “Work End Date” or an error message will occur.**

NA or Unk is acceptable in phone number box for the facility phone number only. If the site does not have a corrective action system, then leave the start-up date field blank and click “No” in the “SAVE” pop up box. If you accidentally enter a date, hit the delete key. After all fields are completed, click the “Save/Close” button. This will store all background information that can be used for any future applications for this facility.

#### **E. GENERAL INFORMATION PAGE**

To begin entering task information/cost, go to the UST cost database main page and click enter/edit task information after selecting a Facility ID and invoice number on the Main page.

##### **1. Entering or deleting employee names**

Click the “Enter/Delete CAC Employee Names” button. Enter all employee names and titles. After entering all employees click the “Close Employee” button.

##### **2. Entering or editing detail task information**

Click the “Enter/Edit Detail Task Information” button.

#### **F. PROCESS AND TASK PAGE**

Click the “Enter New Task” button. Enter a process task, and subtask, and sub sub task by using the drop down boxes provided. The appropriate buttons applicable to the task will be enabled for data entry.

#### **G. BUTTONS**

Only the buttons applicable to each process/task/sub task/sub sub task will be enabled for data entry. At this time, it is encouraged that you familiarize yourself with each task description and cost spreadsheet before beginning database entry.

Comment fields have been provided throughout the database. These fields should be used to supplement your application submittal and offer explanation when needed.

**TRENCHING** - Enter costs associated with recovery well trenching or discharge trenching approved by the Division not to exceed the reasonable rates in RGD-002.

**PERSONNEL** – Personnel hours can be billed as on-site, office, travel to or travel from time. Refer to each task cost description. **NOTE:** Travel time is a separate,

billable expense and is **NOT** included in any task description. Each approved field activity is allowed a maximum of two (2) hours travel to the site and two (2) hours travel from the site.

**RENTALS** – A drop down menu is available of the most commonly encountered rental equipment and items. If a piece of equipment does not appear that accompanies the application, then it must be entered on the “Miscellaneous” button and an explanation attached why the piece of equipment was necessary. It is required that you obtain prior approval from the case manager for any rental equipment not listed in the drop down menu.

**SUPPLIES** – A drop down menu is available of the most commonly encountered supplies and items. If a supply does not appear that accompanies the application, then it must be entered on the “Miscellaneous” button. It is required that you obtain prior approval from the case manager for any supplies not listed in the drop down menu.

**MILEAGE** - The starting location should include, at a minimum, the name of the city and the ending location should be the name of the city where the site is located. On the return trip, the ending location should either be the CAC office or another UST site where work has been approved by the Division. If the destination is another UST site, then please enter the seven digit facility ID # and city. **NOTE:** Mileage is a separate, billable expense and is **NOT** included in any task description. Each approved field activity is allowed a maximum of 250 miles total round trip at a rate of \$0.47/mile for automobiles and at a rate of \$0.75/mile for large (diesel) trucks. Only mileage within the state of Tennessee is reimbursable. If you are traveling from a different state, please list the nearest city in the state of Tennessee as your beginning and/or ending location.

**SAMPLING** - Reimbursed costs include all necessary equipment, personnel and sampling supplies. **DO NOT** itemize separately for personnel time on site. **This task is all an inclusive, lump sum task.** The first well must be entered separately and identified by location number (i.e. MW-1; One well @ \$273.50). Any additional wells sampled may be entered on the same page (i.e. MW-2 thru MW-6; 5 wells @ \$120.00/each).

**WELL SURVEYING** – Reimbursed costs include all necessary equipment, personnel and sampling supplies. **DO NOT** itemize separately for personnel time on site. **This task is all an inclusive, lump sum task.** The first four (4) wells must be entered together (i.e. MW-1 – MW-4 @ \$745.00). Any additional wells surveyed may be entered on the same page (i.e. MW-5 and MW-6; 2 wells @ \$145.00/each).

**ANALYSIS** – Reimbursed at cost plus 15% mark-up not to exceed the rates listed in the RGD-002.

**MEME** – Enter costs associated with any mobile enhanced multi-phase extraction event that has been approved by the Division.

**CAS INSTALL** - Enter costs associated with wellhead vault installation, manifold installation or concrete pad installation approved by the Division not to exceed the reasonable rates in RGD-002.

**WELL INSTALLATION** - Enter costs associated with any drilling activity such as direct push, slide hammer, or hammer drill (soil gas survey) or augering or air rotary (monitoring well installation) event that has been approved by the Division.

**WELL ABANDONMENT** - Enter costs associated with any monitoring well abandonment event that has been approved by the Division.

**MISCELLANEOUS** – This button should be used sparingly and only as an exception. It cannot be used for reports. Costs entered on this tab will be require justification and may be grounds for a detailed audit.

**HAULING/DISPOSAL** – Costs for properly disposing of contaminated soil and/or groundwater as approved by the Division not to exceed the reasonable rates in RGD-002.

**REPORTS** – After selection of the appropriate report, enter the date the report was submitted to the Division and the cost requested.

**UTILITIES** – Enter costs associated with payment of utilities when a corrective action system has been approved by the Division and is installed.

**LODGING/PER DIEM** – Enter costs associated with lodging and per diem for Division approved work in accordance with the state of Tennessee travel regulations in effect at the time that the work was performed.

#### **H. PREVIEWING THE INFORMATION (GENERAL INFORMATION PAGE)**

The “Print Preview and Printing” button may be used any time prior to creating a file for submittal to the state for review purposes as needed. This is a useful tool and it is recommended that you review the information entered prior to creating a file for submittal to the state. In this manner, you can determine if the costs will be reimbursed as entered or if there are any disallowable costs.

#### **I. CREATE FILE FOR SUBMITTAL TO STATE OF TENNESSEE (USE ONLY AFTER THE APPLICATION IS COMPLETE)**

After all entries have been completed and the file is ready to be created, go to the General Information page and click on the button labeled “3. Create File for State Submittal”. A Browse for Folder box will appear to provide a choice of where the file is to be stored. Click on the appropriate folder for the file to be stored. After the file has been successfully saved, the message “The export file was successfully created” will appear. Click “Ok”.

#### **J. BACK-UP DOCUMENTATION TO APPLICATION**

Back-up documentation including invoices, receipts, time sheets, etc. should be scanned and submitted as a pdf file.

#### **K. SUGGESTED PRACTICES**

Always make a back-up copy after each session of data entry in a secure and separate file location for problem situations that may arise. Database maintenance should be

performed occasionally as needed using the Microsoft Access® manage tool, compact and repair.

#### **L. SIGNATURE PAGES**

At this time, the Division does not have a process in place to accept electronic signatures. However, applications must be signed by both the Responsible Party and the CAC to verify the costs submitted represent actual costs accrued during the cost of cleanup. The preferred method is for the person completing the application to provide a copy of the application to the Responsible Party and attach the certification pages. After the Responsible Party has reviewed the application, it must be signed and notarized. The CAC should also complete the applicable certification page in the same manner. Both original, notarized certification pages must be submitted with the electronic submittal. **Electronic copies of these pages will not be accepted.** Applications will not be forwarded to the fiscal office for payment without both certification pages. Copies of these pages are found under Forms and can be downloaded at: [www.tn.gov/environment/underground-storage-tanks/](http://www.tn.gov/environment/underground-storage-tanks/)

**Any item/cost that is not listed in RGD-002 must be pre-approved by the case manager in writing. All back-up documents (emails, letters, etc.) for approval shall be submitted with the application. Failure to obtain case manager approval and/or furnish the back-up documentation will result in denial of the requested costs for that item/cost.**